

**FORMULARUL STANDARD AL DOCUMENTULUI UNIC
DE ACHIZIȚII EUROPEAN**

1. Documentul unic de achiziții europene, (în continuare, DUAE) este o declarație pe proprie răspundere, prin care operatorul economic confirmă îndeplinirea criteriilor de calificare și selecție necesare în cadrul procedurilor de achiziție publică în Republica Moldova.
2. Formularul este completat, semnat electronic și transmis autorității contractante la depunerea ofertei.
3. Un DUAE depus de către operatorul economic în cadrul unei proceduri de achiziție publică anterioară poate fi reutilizat, cu condiția ca informațiile cuprinse în formular să fie corecte și valabile la data depunerii acestuia.
4. Ofertantul care prezintă în DUAE informații false sau documentele justificative prezentate nu confirmă informația indicată în documentul prezentat este exclus din procedura de achiziție publică și/sau poate răspunde conform legislației.
5. Formularul DUAE este constituit din 7 capitole, și anume:
 - 1) Capitolul I. Informații privind procedura de achiziție publică și autoritatea/entitatea contractantă;
 - 2) Capitolul II. Informații referitoare la operatorul economic;
 - 3) Capitolul III. Motive de excludere din cadrul procedurii de achiziție publică;
 - 4) Capitolul IV. Criteriile de calificare și selecție a operatorilor economici;
 - 5) Capitolul V. Indicații generale pentru criteriile de selecție a operatorilor economici;
 - 6) Capitolul VI. Preselecția candidaților pentru procedura de atribuire a contractului de achiziție publică;
 - 7) Capitolul VII. Declarații finale.
6. Prezentarea formularului DUAE la depunerea ofertei care nu este conform cu cerințele stabilite în Documentația de atribuire duce la respingerea ofertei.

Capitolul I. Informații privind procedura de achiziție publică și autoritatea/entitatea contractantă

Compartimentul se completează doar de către autoritatea/entitatea contractantă.

Cod poziție	Conținutul cerinței	Răspuns
1	2	3
A. Informații despre publicare		
1A.1	Numărul anunțului/invitației publicate în Buletinul achizițiilor publice, și după caz numărul anunțului publicat în Jurnalul Oficial al Uniunii Europene	SIA „RSAP” (MTender)
B. Identitatea autorității/entității contractante		
1B.1	Denumirea autorității/entității contractante	Agencia Servicii Publice
1B.2	Număr unic de identificare (IDNO) a autorității/entității contractante	1002600024700

Capitolul II. Informații referitoare la operatorul economic

Compartimentul se completează doar de către operatorii economici.

Cod poziție	Conținutul cerințelor	Răspuns
1	2	3
A. Informații privind operatorul economic		
2A.1	Denumirea operatorul economic	„Media Security” SRL
2A.2	Țara	Republica Moldova
2A.3	Cod poștal	MD-2005
2A.4	Oraș/Localitate	mun. Chișinău
2A.5	Adresa juridică	str. Colina Pușkin, 4
2A.6	Pagina web	media-security.eu
2A.7	Persoana sau persoanele de contact	Gaina Victor
2A.7.1	Telefon	061288888
2A.7.2	Adresa de e-mail	office@media-security.eu
2A.8	Număr unic de identificare (IDNO/IDNP)	1006600023985
2A.9	Numărul cod TVA	0608401
2A.10	Forma organizatorico-juridică a activității de antreprenoriat	Societate cu Raspundere Limitată
2A.11	Informația cu privire la numele acționarilor/asociaților/beneficiarului efectiv	
2A.11.1	Numele acționarilor / asociaților	Victor Gaina
2A.11.2	Numele beneficiarului efectiv <i>[beneficiar efectiv – persoană fizică ce deține sau controlează în ultimă instanță o persoană fizică sau juridică ori beneficiar al unei societăți de investiții sau administrator al societății de investiții, ori persoană în al cărei nume se desfășoară o activitate sau se realizează o tranzacție și/sau care deține, direct sau indirect, dreptul de proprietate sau controlul asupra a cel puțin 25% din acțiuni sau din dreptul de vot al persoanei juridice ori asupra bunurilor aflate în administrare fiduciară]</i>	Victor Gaina
2A.11.3	Cetățenia beneficiarului efectiv <i>(legătură juridico-politică permanentă a persoanei fizice definite conform poziției 2A.11.2)</i>	Republicii Moldova și României
2A.12	Operatorul economic este: • întreprindere mică • întreprindere mijlocie • și altele	întreprindere mijlocie
2A.13	În cazul în care achiziția este rezervată: operatorul economic este un atelier protejat sau o întreprindere socială, sau va asigura executarea contractului în contextul programelor de angajare protejată?	Da ☐ Nu
2A.13.1	<i>Dacă da, care este procentul corespunzător de lucrători cu dizabilități sau defavorizați?</i>	număr
2A.13.2	<i>Specificați cărei sau căror categorii de lucrători cu dizabilități sau defavorizați le aparțin angajații în cauză?</i>	text
2A.14	Operatorul economic participă la procedura de achiziții publice împreună cu alți operatori economici?	Da ☐ Nu
2A.14.1	<i>Dacă Da, precizați rolul operatorului economic în cadrul grupului (lider, responsabil cu îndeplinirea</i>	text

	unor sarcini specifice, etc).	
2A.14.2	Numiți operatorii economici care participă la procedura respectivă de achiziție publică.	text
2A.14.3	Specificați denumirea grupului participant.	text
Notă. Dacă ați răspuns Da la întrebarea 2A.14, asigurați-vă ca operatorii economici menționați să prezinte un formular DUAE separat.		
B. Informații privind reprezentanții operatorului economic		
Indicați numele persoanei (persoanelor) împuternicită (împuternicite) să îl reprezinte pe operatorul economic în scopurile prezentei proceduri de achiziție publică.		
2B.1	Nume și prenume	text
2B.2	Poziție/acționând în calitate de..	text
2B.3	Țară	text
2B.4	Telefon	număr
2B.5	Adresa de e-mail	text
C. Informații privind utilizarea capacităților altor entități		
2C.1	Operatorul economic utilizează capacitățile altor entități pentru a satisface criteriile de selecție prevăzute în capitolul IV, precum și (dacă este cazul) criteriile și regulile menționate în capitolul V de mai jos?	Da ☐ Nu ☐
Notă. Dacă ați răspuns Da la întrebarea 2C.1, prezentați un formular DUAE separat care să cuprindă informațiile solicitate în secțiunile A și B din capitolul respectiv și din capitolul III pentru fiecare dintre entitățile în cauză, completat și semnat în mod corespunzător de entitățile în cauză. Atragem atenția asupra faptului că trebuie incluși, de asemenea, tehnicienii sau organismele tehnice implicate, indiferent dacă fac sau nu parte din întreprinderea operatorului economic, în special cei care răspund de controlul calității și, în cazul contractelor de achiziții publice de lucrări, tehnicienii sau organismele tehnice la care poate face apel operatorul economic în vederea executării lucrărilor. În măsura în care este relevant pentru capacitatea (capacitățile) specifică (specifice) utilizată (utilizate) de operatorul economic, includeți informațiile prevăzute în capitolele IV și V pentru fiecare dintre entitățile în cauză.		
D. Informații privind subcontractanții pe ale căror capacități operatorul economic se bazează		
2D.1	Operatorul economic intenționează să subcontracteze vreo parte din contract cu alți operatori economici?	Da ☐ Nu ☐
2D.1.1	Dacă Da, enumerați subcontractanții propuși.	text

Capitolul III. Motive de excludere din cadrul procedurii de achiziție publică

Compartimentul se completează de către operatorii economici.

Cod poziție	Conținutul cerințelor	Răspuns
A. Motive referitoare la condamnări prin hotărârea definitivă a unei instanțe judecătorești		
1	2	3
3A.1	Participare la o organizație criminală. Operatorul economic însuși sau orice persoană care este membru al organismului de administrare, de conducere sau de supraveghere al acestuia sau care are putere de reprezentare, de decizie sau de control în cadrul acestuia a făcut obiectul unei condamnări pronunțate printr-o hotărâre definitivă pentru participare la o organizație criminală, printr-o condamnare pronunțată cu cel mult cinci ani în urmă sau în care continuă să se aplice o perioadă de excludere prevăzută în mod direct în condamnare?	Da ☐ Nu ☐
3A.2	Corupție.	Da ☐

	Operatorul economic însuși sau orice persoană care este membru al organismului de administrare, de conducere sau de supraveghere al acestuia sau care are putere de reprezentare, de decizie sau de control în cadrul acestuia a făcut obiectul unei condamnări pentru corupție pronunțate printr-o hotărâre definitivă, printr-o condamnare pronunțată cu cel mult cinci ani în urmă sau în care continuă să se aplice o perioadă de excludere prevăzută în mod direct în condamnare?	☐ ☐ Nu
3A.3	Fraude. Operatorul economic însuși sau orice persoană care este membru al organismului de administrare, de conducere sau de supraveghere al acestuia sau care are putere de reprezentare, de decizie sau de control în cadrul acestuia a făcut obiectul unei condamnări pentru fraudă pronunțate printr-o hotărâre definitivă, printr-o condamnare pronunțată cu cel mult cinci ani în urmă sau în care continuă să se aplice o perioadă de excludere prevăzută în mod direct în condamnare?	Da ☐ Nu
3A.4	Infrațiuni teroriste sau infracțiuni legate de activitățile teroriste. Operatorul economic însuși sau orice persoană care este membru al organismului de administrare, de conducere sau de supraveghere al acestuia sau care are putere de reprezentare, de decizie sau de control în cadrul acestuia a făcut obiectul unei condamnări pentru infracțiuni teroriste sau infracțiuni legate de activități teroriste, pronunțate printr-o hotărâre definitivă, printr-o condamnare pronunțată cu cel mult cinci ani în urmă sau în care continuă să se aplice o perioadă de excludere prevăzută în mod direct în condamnare?	Da ☐ Nu ☐
3A.5	Spălare de bani sau finanțarea terorismului. Operatorul economic însuși sau orice persoană care este membru al organismului de administrare, de conducere sau de supraveghere al acestuia sau care are putere de reprezentare, de decizie sau de control în cadrul acestuia a făcut obiectul unei condamnări pentru infracțiuni teroriste sau infracțiuni legate de activități teroriste, pronunțate printr-o hotărâre definitivă, printr-o condamnare pronunțată cu cel mult cinci ani în urmă sau în care continuă să se aplice o perioadă de excludere prevăzută în mod direct în condamnare?	Da ☐ ☐ Nu
3A.6	Exploatarea prin muncă a copiilor și alte forme de trafic de persoane. Operatorul economic însuși sau orice persoană care este membru al organismului de administrare, de conducere sau de supraveghere al acestuia sau care are putere de reprezentare, de decizie sau de control în cadrul acestuia a făcut obiectul unei condamnări pronunțate printr-o hotărâre definitivă pentru exploatare prin muncă a copiilor și alte forme de trafic de persoane, printr-o condamnare pronunțată cu cel mult cinci ani în urmă sau în care continuă să se aplice o perioadă de excludere prevăzută în mod direct în condamnare?	Da ☐ Nu

3A.7	În cazul că răspunsul este Da pentru cel puțin una din întrebările 3A.1 – 3A.6, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?	Da ☐ Nu
3A.7.1	<i>Dacă Da, descrieți aceste măsuri.</i>	
B. Motive privind plata impozitelor sau/și a contribuțiilor de asigurări sociale		
Plata impozitelor		
3B.1	Operatorul economic și-a onorat obligațiile cu privire la plata impozitelor, taxelor și contribuțiilor sociale în conformitate cu prevederile legale în vigoare în Republica Moldova sau în țara în care este stabilit?	☐ Da ☐ Nu
3B.1.1	<i>Dacă Nu, în ce mod a fost stabilită obligația cu privire la plata impozitelor, taxelor și contribuțiilor sociale?</i>	
3B.1.2	<i>În cazul în care, încălcarea cu referire la obligațiile privind plata impozitelor, taxelor și contribuțiilor sociale a fost stabilită printr-o hotărâre judecătorească sau administrativă, această decizie este definitivă?</i>	Da ☐ Nu
3B.1.3	<i>În cazul în care, încălcarea cu referire la obligațiile privind plata impozitelor, taxelor și contribuțiilor sociale a fost stabilită printr-o hotărâre judecătorească sau administrativă, precizați data și numărul deciziei.</i>	
3B.2	Operatorul economic beneficiază, în condițiile legii, de eșalonarea obligațiilor de plată a impozitelor, taxelor și contribuțiilor de asigurări sociale ori de alte facilități în vederea plății acestora, inclusiv a majorărilor de întârziere (penalităților) și/sau a amenzilor? Notă: Se completează doar în cazul în care ați răspuns Nu, la întrebarea din 3B.1.	Da ☐ Nu
3B.2.1	<i>Dacă Da, operatorul economic este în măsură să furnizeze actul privind eșalonarea obligațiilor de plată a impozitelor, taxelor și contribuțiilor de asigurări sociale ori de alte facilități în vederea plății acestora?</i>	Da ☐ Nu
3B.3	Operatorul economic este în măsură să furnizeze un certificat cu privire la plata impozitelor sau să furnizeze informații privind onorarea obligațiilor fiscale?	☐ Da ☐ Nu
3B.4	Informațiile privind lipsa/existența restanțelor față de bugetul public național sunt disponibile gratuit pentru autorități, prin accesarea unei baze de date naționale? Dacă da, specificați informația care ar permite verificarea.	Adresa de internet:
		Autoritatea sau organismul emitent(ă):
		Referința exactă a documentației:
C. Includerea în lista de interdicție a operatorilor economici		
3C.1	Operatorul economic este înscris în lista de interdicție a operatorilor economici?	Da ☐ ☐ Nu
3C.1.1	<i>În cazul că răspunsul este Da pentru întrebarea 3C.1, puteți furniza dovezi care să arate că măsurile luate sunt</i>	Da ☐ Nu

	suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?	
3C.1.2	Dacă Da, descrieți aceste măsuri.	text
D. Motive legate de insolvabilitate, conflicte de interese sau abateri profesionale		
	Obligațiile aplicabile în domeniul mediului, muncii și asigurărilor sociale	
3D.1	Operatorul economic a încălcat obligațiile în domeniul mediului în ultimii 3 ani?	Da ☐ ☐ ☐ ☐ Nu
3D.1.1	În cazul că răspunsul este Da pentru întrebarea 3D.1, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?	Da ☐ Nu
3D.1.2	Dacă Da, descrieți aceste măsuri.	text
3D.2	Operatorul economic a încălcat obligațiile în domeniul social în ultimii 3 ani?	Da ☐ Nu
3D.2.1	În cazul că răspunsul este Da pentru întrebarea 3D.2, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?	Da ☐ Nu
3D.2.2	Dacă Da, descrieți aceste măsuri.	text
3D.3	Operatorul economic a încălcat obligațiile în domeniul muncii în ultimii 3 ani?	Da ☐ Nu
3D.3.1	În cazul că răspunsul este Da pentru întrebarea 3D.3, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?	Da ☐ Nu
3D.3.2	Dacă Da, descrieți aceste măsuri.	text
	Insolvabilitatea	
3D.4	Operatorul economic este în situație de insolvabilitate sau de lichidare a activității antreprenoriale ca urmare a unei hotărâri judecătorești?	Da ☐ ☐ ☐ ☐ Nu
3D.4.1	În cazul că răspunsul este Da pentru întrebarea 3D.4, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?	Da ☐ Nu
3D.4.2	Dacă Da, descrieți aceste măsuri.	text
	Active administrate de lichidator	
3D.5	Activele operatorului economic sunt administrate de un lichidator sau de o instanță?	Da ☐ ☐ ☐ ☐ Nu
3D.5.1	În cazul că răspunsul este Da pentru întrebarea 3D.5, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?	Da ☐ Nu
3D.5.2	Dacă Da, descrieți aceste măsuri.	text
	Activitățile economice sunt suspendate	
3D.6	Activitățile economice ale operatorului economic sunt suspendate?	Da ☐ ☐ ☐ ☐ Nu
3D.6.1	În cazul că răspunsul este Da pentru întrebarea 3D.6, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?	Da ☐ Nu
3D.6.2	Dacă Da, descrieți aceste măsuri.	text
	Acorduri cu alți operatori economici care vizează	

	denaturarea concurenței	
3D.7	Operatorul economic, în ultimii 3 ani, a încheiat acorduri cu alți operatori economici care au ca obiect denaturarea concurenței, fapt constatat prin decizie a organului abilitat în acest sens?	Da ☐ Nu
3D.7.1	<i>În cazul că răspunsul este Da pentru întrebarea 3D.7, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?</i>	Da ☐ Nu
3D.7.2	<i>Dacă Da, descrieți aceste măsuri.</i>	text
	Conflict de interese	
3D.8	Operatorul economic se află într-o situație de conflict de interese care nu poate fi remediată?	Da ☐ Nu
3D.8.1	<i>În cazul că răspunsul este Da pentru întrebarea 3D.8, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?</i>	Da ☐ Nu
3D.8.2	<i>Dacă Da, descrieți aceste măsuri.</i>	text
	Etica profesională	
3D.9	Operatorul economic a fost condamnat, în ultimii 3 ani, prin hotărâre definitivă a unei instanțe judecătorești, pentru o faptă care a adus atingere eticii profesionale sau pentru comiterea unei greșeli în materie profesională?	Da ☐ Nu
3D.9.1	<i>În cazul că răspunsul este Da pentru întrebarea 3D.9, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?</i>	Da ☐ Nu
3D.9.2	<i>Dacă Da, descrieți aceste măsuri.</i>	text
	Integritatea	
3D.10	Operatorul economic, în ultimii 3 ani, se face vinovat de o abatere profesională, care îi pune la îndoială integritatea?	Da ☐ Nu
3D.10.1	<i>În cazul că răspunsul este Da pentru întrebarea 3D.10, puteți furniza dovezi care să arate că măsurile luate sunt suficiente pentru a demonstra fiabilitatea, în pofida existenței unui motiv de excludere?</i>	Da ☐ Nu
3D.10.2	<i>Dacă Da, descrieți aceste măsuri.</i>	text

Capitolul IV. Criteriile de calificare și selecție a operatorilor economici

Compartimentul se completează de către autoritatea/entitatea (coloana nr.2) contractantă și operatorii economici (coloana nr.3).

Cod poziție	Conținutul cerințelor	Răspuns
1	2	3
A. Capacitatea de exercitare a activității profesionale		
4A.1	Operatorul economic este în măsură să furnizeze documentul/documentele prin care se va demonstra înregistrarea acestuia? <i>Persoană juridică înregistrată în țara de origine - Copia documentului confirmativ eliberat de către organul competent, orice document considerat edificator, în țara de origine sau în țara în care ofertantul este stabilit sau alte documente echivalente emise de autorități competente din țara respectivă – copia în format electronic de pe</i>	☐ Da ☐ Nu

	<i>documentul pe suport de hârtie cu semnătură olografă fără aplicarea semnăturii electronice sau documentul confirmat prin semnătura electronică a operatorului economic (semnătura electronică recunoscută pe teritoriul Republicii Moldova)</i> <i>În cazul în care în țara de origine sau în țara în care este stabilit ofertantul nu se emit documentele solicitate, autoritatea contractantă va accepta o declarație pe propria răspundere sau, dacă în țara respectivă nu există prevederi legale referitoare la declarația pe propria răspundere, o declarație autentică dată în fața unui notar, a unei autorități administrative sau judiciare sau a unei asociații profesionale care are competențe în acest sens (pct. 27 din Documentația standard pentru realizarea achizițiilor publice de bunuri și servicii aprobată prin Ordinul Ministerului Finanțelor nr. 115 din 15.09.2021) – copia în format electronic de pe documentul pe suport de hârtie cu semnătură olografă fără aplicarea semnăturii electronice sau documentul confirmat prin semnătura electronică a operatorului economic (semnătura electronică recunoscută pe teritoriul Republicii Moldova)</i>	
4A.1.1	<i>Dacă Da, indicați actele de înregistrare a activității antreprenoriale și genul (genurile) de activitate determinate de legislație, aferent obiectului procedurii de atribuire a contractului, în baza căreia întreprinderea are dreptul să execute viitorul contract de achiziție publică.</i>	Decizie de înregistrare din 22.05.2006; gen de activitate: Montarea și (sau) reglarea, asistență tehnică a sistemelor automate de semnalizare și de stingere a incendiilor, precum și de protecție a clădirilor împotriva fumului și de înștiințare în caz de incendiu
4A.1.2	<i>Actele de înregistrare a activității antreprenoriale, sunt disponibile gratuit pentru autorități dintr-o bază de date națională? Dacă da, specificați informația care ar permite verificarea.</i>	Adresa de internet: text Autoritatea sau organismul emitent(ă): text Referința

		<i>exactă a documentației :</i> text
4A.2	Activitatea antreprenorială deține o certificare și/sau o autorizare echivalentă aferent obiectului procedurii de atribuire a contractului, în cadrul unui sistem național? <i>Nu se solicită.</i>	☐ Da ☐ Nu
4A.2.1	Dacă Da, operatorul economic este în măsură să furnizeze documentul/documentele prin care se va demonstra certificarea și/sau autorizarea activității acestuia? <i>Nu se solicită.</i>	☐ Da ☐ Nu
4A.2.3	Actele privind certificarea sau autorizarea sunt disponibile gratuit pentru autorități, dintr-o bază de date națională? Dacă da, specificați informația care ar permite verificarea.	Adresa de internet: text Autoritatea sau organismul emitent(ă): text Referința exactă a documentației : text
4A.3	Genurile de activitate, și/sau certificarea, și/sau autorizarea privind activitatea de întreprinzător, acoperă criteriile de selecție impuse de autoritatea/entitatea contractantă în anunțul/invitația de participare? <i>Nu se solicită.</i>	☐ Da ☐ Nu
B. Capacitatea economică și financiară		
	Declarații bancare	
4B.1	Operatorul economic este în măsură să furnizeze declarații bancare sau, după caz, dovezi privind asigurarea riscului profesional în conformitate cu cerințele din documentația de atribuire? <i>Nu se solicită.</i>	☐ Da ☐ Nu
4B.1.1	Informația menționată la punctul 4B.1 este disponibilă gratuit pentru autorități, dintr-o bază de date națională? Dacă da, specificați informația care ar permite verificarea ei.	Adresa de internet: text Autoritatea sau organismul emitent(ă): text Referința exactă a documentației : text
	Cifra de afaceri anuală (volumul vânzărilor)	
4B.2	Operatorul economic este în măsură să demonstreze o cifră de afaceri anuală, după cum urmează: Notă. Se completează de către autoritatea contractantă valoarea și perioada.	☐ Da ☐ Nu

4B.2.1	<i>Specificați care este cifra de afaceri anuală, conform datelor din raportul financiar.</i>	Valoarea [număr]
		Anul text
	Cifra de afaceri medie anuală	
4B.3	Operatorul economic este în măsură să demonstreze o cifră medie anuală de afaceri, după cum urmează: Valoare _____ Perioada _____ Nu se solicită. <i>Notă. Se completează de către autoritatea contractantă valoarea și perioada</i>	☐ Da ☐ Nu
4B.3.1	<i>Specificați cifra de afaceri, conform datelor din raportul financiar.</i>	Valoarea [număr]
		Anul text
		Valoarea [număr]
		Anul text
		Valoarea [număr]
		Anul text
		Valoarea medie totală [număr]
	Raport financiar	
4B.4	Operatorul economic este în măsură să furnizeze raportul financiar înregistrat, extrase din raportul financiar? Nu se solicită.	☐ Da ☐ Nu
4B.5	Informațiile privind situația economică și financiară sunt disponibile gratuit pentru autorități, dintr-o bază de date națională? Dacă da, specificați informația care ar permite verificarea.	Adresa de internet: text
		Autoritatea sau organismul emitent(ă): text
		Referința exactă a documentației: text
C. Capacitatea tehnică și/sau profesională		
4C.1	Operatorul economic este în măsură să furnizeze documentele solicitate de către autoritatea/entitatea contractantă în anunțul de participare, care demonstrează capacitatea tehnică și/sau profesională pentru executarea viitorului contract. Nu se solicită.	☐ Da ☐ Nu
4C.1.1	<i>Informațiile privind capacitatea tehnică și/sau profesională sunt disponibile gratuit pentru autorități, dintr-o bază de date națională? Dacă da, specificați informația care ar permite verificarea.</i>	Adresa de internet: text
		Autoritatea sau organismul emitent(ă): text
		Referința exactă a

		documentației: text
	Instalații tehnice și măsuri de asigurare a calității	
4C.2	Operatorul economic este în măsură să furnizeze detalii referitoare la tehnicieni sau organisme tehnice, specificate în anunțul de participare/documentația de atribuire, pe care autoritatea/entitatea contractantă le poate solicita, în special cele responsabile de controlul calității în legătură cu acest exercițiu de achiziție publică? <i>Nu se solicită.</i>	☐ Da ☐ Nu
4C.3	Operatorul economic este în măsură să furnizeze o informație cu privire la sistemele de management și de trasabilitate utilizate în cadrul lanțului de aprovizionare? <i>Nu se solicită.</i>	☐ Da ☐ Nu
4C.3.1	<i>Informațiile sunt disponibile gratuit pentru autorități, dintr-o bază de date națională? Dacă da, specificați informația care ar permite verificarea.</i>	Adresa de internet: text
		Autoritatea sau organismul emitent(ă): text
		Referința exactă a documentației: text
	Utilaje, instalații și echipament tehnic	
4C.4	Operatorul economic este în măsură să furnizeze o informație cu privire la sistemele de management și de trasabilitate utilizate în cadrul lanțului de aprovizionare? <i>Disponerea de utilaj specializat pentru confecționarea valțurilor egutori (valț metalic), utilizate în procesul de fabricare a hârtiei speciale offset - Declarație privind dotările specifice, utilajul și echipamentul necesar pentru îndeplinirea corespunzătoare a contractului, completată conform Anexei nr. 13 la Documentația standard aprobată prin Ordinul Ministrului Finanțelor nr. 115 din 15.09.2021</i>	☐ Da ☐ Nu
4C.5	Operatorul economic este în măsură să furnizeze o informație cu privire la dotările specifice, utilajul și echipamentul necesar pentru îndeplinirea contractului, conform cerințelor stabilite în anunțul de participare și documentația de atribuire? <i>Copia în format electronic de pe documentul pe suport de hârtie cu semnătură olografă fără aplicarea semnăturii electronice sau documentul confirmat prin semnătura electronică a operatorului economic (semnătura electronică recunoscută pe teritoriul Republicii Moldova)</i>	☐ Da ☐ Nu
	Pregătirea profesională și calificarea personalului	
4C.6	Operatorul economic are în cadrul întreprinderii personal calificat conform cerințelor stabilite în anunțul de participare sau în documentația de atribuire? <i>Nu se solicită.</i>	☐ Da ☐ Nu

4C.7	Operatorul economic este în măsură să furnizeze o informație privind personalul de specialitate propus pentru executarea contractului, conform cerințelor stabilite în anunțul de participare și documentația de atribuire? <i>Nu se solicită.</i>	☐ Da ☐ Nu
4C.8	Indicați efectivele medii anuale de personal angajat din ultimii trei ani de activitate. <i>Nu se solicită.</i>	Anul text Angajați [număr] Anul text Angajați [număr] Anul text Angajați [număr]
	Numărul membrilor personalului de conducere	
4C.9	Indicați numărul membrilor personalului de conducere ale operatorului economic pe parcursul ultimilor trei ani. <i>Nu se solicită.</i>	Anul text Persoane [număr] Anul text Persoane [număr] Anul text Persoane [număr]
	Mostre, descrieri, fotografii	
4C.10	Operatorul economic este în măsură să furnizeze eșantioane (mostre), descrieri și/sau fotografii ale produselor/serviciilor care urmează să fie furnizate/prestate, conform cerințelor stabilite în documentația de atribuire? <i>Nu se solicită.</i>	☐ Da ☐ Nu
	Pentru contractele de achiziție publică de lucrări	
4C.11	În perioada de referință, operatorul economic a îndeplinit lucrări specifice sau similare obiectului de achiziție indicat în anunțul de participare și în documentația de atribuire?	☐ Da ☐ Nu
4C.11.1	<i>Dacă Da, enumerați-le specificând descrierea lucrărilor, valoarea lor, data de începere, data procesului verbal de recepție la terminarea lucrărilor, beneficiarul și altă informație relevantă.</i>	text
	Pentru contractele de achiziție publică de bunuri	
4C.12	În perioada de referință, operatorul economic a efectuat livrări specifice obiectului de achiziție indicat în anunțul de participare și în documentația de atribuire? <i>Experiență specifică în livrarea bunurilor similare (art. 22 alin. (1) lit. a) din Legea 131/2015 privind achizițiile publice)</i>	☐ Da ☐ Nu
4C.12.1	<i>Dacă Da, enumerați-le specificând descrierea livrărilor, valoarea lor, data de începere, data furnizării, beneficiarul și altă informație relevantă.</i> <i>Declarație privind lista principalelor livrări/prestări</i>	text

	<i>efectuate în ultimii 3 ani de activitate, completată conform Anexei nr. 12 la Documentația standard aprobată prin Ordinul Ministrului Finanțelor nr. 115 din 15.09.2021. Livrarea bunurilor se confirmă prin prezentarea unor certificate / documente emise sau contrasemnate de către beneficiarii de livrări.</i> <i>Copia în format electronic de pe documentul pe suport de hârtie cu semnătură olografă fără aplicarea semnăturii electronice sau documentul confirmat prin semnătura electronică a operatorului economic (semnătura electronică recunoscută pe teritoriul Republicii Moldova)</i>	
	Pentru contractele de achiziție publică de servicii	
4C.13	În perioada de referință, operatorul economic a prestat servicii similare cu obiectul de achiziție indicat în anunțul de participare și în documentația de atribuire?	☐ Da ☐ Nu
4C.13.1	Dacă Da, enumerați-le specificând descrierea serviciilor, valoarea lor, durata de execuție, data începerii, beneficiarul și altă informație relevantă.	text
4C.14	În cazul că răspunsul este Da pentru una din întrebările 4C.11 – 4C.13, puteți furniza dovezi prin care se va demonstra îndeplinirea lucrărilor, livrarea bunurilor, prestarea serviciilor similare conform cerințelor documentației de atribuire?	☐ Da ☐ Nu
D. Standarde de asigurare a calității		
4D.1	Operatorul economic este în măsură să furnizeze certificate emise de organisme independente prin care se atestă faptul că operatorul economic respectă standardele de asigurare a calității conform cerințelor stabilite în anunțul de participare și în documentația atribuire? <i>Corespunderea sistemului de management al calității conform ISO 9001 - copia în format electronic de pe documentul pe suport de hârtie cu semnătură olografă fără aplicarea semnăturii electronice sau documentul confirmat prin semnătura electronică a operatorului economic (semnătura electronică recunoscută pe teritoriul Republicii Moldova)</i>	☐ Da ☐ Nu
4D.2	Informațiile privind standardele de asigurare a calității, sunt disponibile gratuit pentru autorități, dintr-o bază de date națională? Dacă da, specificați informația care ar permite verificarea. <i>Nu se solicită.</i>	Adresa de internet: text Autoritatea sau organismul emitent(ă): text Referința exactă a documentației: text
E. Standarde de protecție a mediului		
4E.1	Operatorul economic este în măsură să furnizeze certificate emise de organisme independente prin care se atestă faptul că	☐ Da ☐ Nu

	operatorul economic respectă standardele de protecție a mediului, conform cerințelor stabilite în anunțul de participare și în documentația de atribuire? <i>Corespunderea sistemului de management de mediu conform ISO 14001 - copia în format electronic de pe documentul pe suport de hârtie cu semnătură olografă fără aplicarea semnăturii electronice sau documentul confirmat prin semnătura electronică a operatorului economic (semnătura electronică recunoscută pe teritoriul Republicii Moldova)</i>	
4E.2	Informațiile privind standardele de protecția mediului, sunt disponibile gratuit pentru autorități, dintr-o bază de date națională? Dacă da, specificați informația care ar permite verificarea. <i>Nu se solicită.</i>	Adresa de internet: text Autoritatea sau organismul emitent(ă): text Referința exactă a documentației: text
F. Permiterea controalelor		
4F.1	Operatorul economic permite efectuarea verificărilor de către autoritatea/entitatea contractantă referitor la capacitățile economice și financiare, de producție sau tehnice privind executarea viitorului contract de achiziție publică? <i>Nu se solicită.</i>	☐ Da ☐ Nu

Capitolul V. Indicații generale pentru criteriile de calificare și selecție

Compartimentul se completează de către autoritatea/entitatea contractantă (coloana nr.2) și operatorii economici (coloana nr.3).

Cod poziție	Conținutul cerințelor	Răspuns
1	2	3
A. Îndeplinirea tuturor criteriilor de selecție impuse		
5A.1	Operatorul economic este în măsură să furnizeze în Sistemul informațional automatizat „Registrul de stat al achizițiilor publice” sau prin mijloace electronice, sau dacă e cazul, pe suport de hârtie autorității contractante: formularele, certificatele, avizele și alte documente indicate de către autoritatea/entitatea contractantă în anunțul de participare și în documentația de atribuire? Termen 7 zile calendaristice de la solicitare. <i>Notă. Numărul de zile se indică de către autoritatea contractantă ținând cont de cantitatea și caracterul documentelor solicitate.</i>	☐ Da ☐ Nu
5A.2	Informațiile care să îi permită autorității/entității contractante să obțină documentele indicate în anunțul de participare și în documentația de atribuire, sunt disponibile gratuit și direct prin accesarea unei baze de date naționale în orice stat? Dacă da, specificați informația care ar permite verificarea.	Adresa de internet: text Autoritatea sau organismul

		emitent(ă): text
		Referința exactă a documentației: text

Capitolul VI. Preselecția candidaților pentru procedura de atribuire a contractului de achiziție publică

Compartimentul se solicită de către autoritatea contractantă doar în cadrul procedurilor de achiziție publică: licitația restrânsă, negociere, dialog competitiv și parteneriatul pentru inovare.

Cod poziție	Conținutul cerințelor	Răspuns
1	2	3
A.	Îndeplinirea tuturor criteriilor de selecție impuse	
6A.1	Operatorul economic/candidatul îndeplinește criteriile de selecție stabilite de către autoritatea contractantă în anunțul de participare și în documentația de atribuire.	☒ Da ☐ Nu
6A.2	Operatorul economic/candidatul dispune și este în măsură să furnizeze în Sistemul informațional automatizat „Registrul de stat al achizițiilor publice” sau prin mijloace electronice, sau dacă e cazul, pe suport de hârtie autorității contractante certificate sau alte forme de documente justificative, după cum este cerut în anunțul de participare și în documentația de atribuire.	☐ Da ☒ Nu

Capitolul VII. Declarații finale

Operatorul economic declară că informațiile prezentate în capitolele II – V (după caz II-VI) sunt exacte și corect furnizate, cunoscând pe deplin consecințele cazurilor grave de declarații false.

Operatorul economic declară în mod oficial, că poate să furnizeze la solicitarea autorității/entității contractante fără întârziere, certificatele și documentele justificative solicitate, cu excepția cazului în care autoritatea/entitatea contractantă are posibilitatea de a obține documentele justificative în cauză direct prin accesarea unei baze de date relevante, care este disponibilă gratuit, cu condiția că operatorul economic să fi furnizat informațiile necesare (adresa de internet, autoritatea sau organismul emitent(ă), referința exactă a documentației) care să îi permită autorității contractante sau entității contractante să facă acest lucru și se consimte accesul la informațiile menționate, în cazul în care acest lucru este necesar.

Operatorul economic declară în mod oficial că este de acord ca **Agenția Servicii Publice** astfel cum este descrisă în capitolul I secțiunea A să obțină acces la documentele justificative privind informațiile pe care le-a furnizat în acest DUAE în scopul desfășurării procedurii de achiziție: **licitație deschisă – Hârtie specială offset pentru perioada 2023 - 2025.**

(Se va completa și semna de către operatorul economic)

Nume: Gaina Victor

Funcția: Director

Data: 29.04.2024

Adresa: mun. Chișinău, str. Dimitrie Cantemir, 5/4

Semnătura _____

Anexa nr. 7

la Documentația standard nr. ocde-b3wdp1-MD-1712652298258

din "09" aprilie 2024

CERERE DE PARTICIPARE

Către **Î.S. Aeroportul Internațional Chișinău, 2026, Moldova, mun. Chișinău, bd. Dacia, 80/3,**

Stimați domni,

Ca urmare a anunțului/invitației de participare/de pre selecție apărut în Buletinul achizițiilor publice și/sau Jurnalul Oficial al Uniunii Europene, **nr. 21203357 din 09.04.2024**, privind aplicarea procedurii pentru atribuirea contractului **Piese de schimb pentru uşile de tip BESAM (repetat)**, noi **SRL „MEDIA SECURITY”** (denumirea/numele ofertantului/candidatului), am luat cunoștință de condițiile și de cerințele expuse în documentația de atribuire și exprimăm prin prezenta interesul de a participa, în calitate de ofertant/candidat, neavând obiecții la documentația de atribuire.

Data completării 26.04.2024

Cu stimă,

Ofertant/candidat
SRL „MEDIA SECURITY”
Administrator Victor Gaina
(semnătura autorizată)

Anexa nr. 8
la Documentația standard nr. _____
din “_09_” _aprilie_ 2024_

DECLARAȚIE
privind valabilitatea ofertei

Către Î.S. Aeroportul Internațional Chișinău, 2026, Moldova, mun. Chișinău, bd. Dacia, 80/3
(denumirea autorității contractante și adresa completă)

Stimați domni,

Ne angajăm să menținem oferta valabilă, **privind achiziționarea _Piese de schimb pentru ușile de tip BESAM (repetat)** (se indică obiectul achiziției)
prin procedura de achiziție _____ Licitație deschisă _____,
(tipul procedurii de achiziție)
pentru o durată de 30 zile, (durata în litere și cifre), respectiv până la data de 01_06_2024
(ziua/luna/anul), și ea va rămâne obligatorie pentru noi și poate fi acceptată oricând înainte de expirarea perioadei de valabilitate.

Data completării . 26 04 2024. Cu stimă,

Ofertant/candidat
Media Security SRL Administrator Victor Gaina.
(semnătura autorizată)

SRL „Media Security”
(denumirea/numele operatorului economic)

DECLARAȚIE
privind neîncadrarea în situațiile prevăzute la art.16 alin.(2) lit.a) din Legea nr.246/2017 cu
privire la întreprinderea de stat și întreprinderea municipală

Titlul achiziției: Achiziționarea pieselor de schimb pentru uşile de tip BESAM

Subsemnatul, Victor Gaina, reprezentantul legal al SRL „Media Security”,
(numele și prenumele) (denumirea operatorului economic)

în calitate de ofertant, la achiziție **MTender ID ocds-b3wdp1-MD-1712652298258, cod CPV 42419500-1,**

organizată de Î.S. „Aeroportul Internațional Chișinău”, declar pe propria răspundere, sub sancțiunea excluderii din procedură și a sancțiunilor aplicate faptei de fals în acte publice, că nu ne aflăm în situațiile prevăzute la art.16 alin.(2) lit.a) din Legea nr.246/2017 cu privire la întreprinderea de stat și întreprinderea municipală, respectiv ofertantul:

- nu are drept membrul în cadrul consiliului de administrație/organului de conducere și/sau nu avem persoane care sunt soț/soție, persoana înrudită prin sânge sau prin adopție cu subiectului declarării (părinte, frate/soră, bunic/bunică, nepot/nepoată, unchi/mătușă) și persoana înrudită prin afinitate cu subiectul declarării (cumnat/cumnată, socru/soacră, ginere/noră) inclusiv ori care se află în relații comerciale cu persoane cu funcții de decizie în cadrul Întreprinderii sau al furnizorului de servicii de achiziție implicat în procedura de atribuire.

- nu a nominalizat printre principalele persoane desemnate pentru executarea contractului persoane care sunt soț/soție, persoana înrudită prin sânge sau prin adopție cu subiectului declarării (părinte, frate/soră, bunic/bunică, nepot/nepoată, unchi/mătușă) și persoana înrudită prin afinitate cu subiectul declarării (cumnat/cumnată, socru/soacră, ginere/noră) inclusiv ori care se află în relații comerciale cu persoane cu funcții de decizie în cadrul Întreprinderii sau al furnizorului de servicii de achiziție implicat în procedura de atribuire,

Declar că informațiile furnizate în scopul demonstrării îndeplinirii criteriilor de calificare sunt complete și corecte în fiecare detaliu și înțeleg că întreprinderea are dreptul de a solicita, în scopul verificării și confirmării declarațiilor, orice documente doveditoare de care dispun.

Data completării 26.04.2024

Operator economic _____
(semnătura)

Persoanele care dețin funcții de decizie în cadrul întreprinderii, responsabile cu achiziția:
- Gaina Victor

Specificații tehnice

[Acest tabel va fi completat de către ofertant în coloanele 2, 3, 4, 6, 7, iar de către autoritatea contractantă – în coloanele 1, 5,]

Numărul procedurii de achiziție nr MTender ID ocds-b3wdp1-MD-1712652298258 din 30 04 2024						
Obiectul achiziției: Piese de schimb pentru ușile de tip BESAM (repetat)						

Denumirea bunurilor/serviciilor	Denumirea modelului bunului/serviciului	Țara de origine	Produ-cătorul	Specificarea tehnică deplină solicitată de către autoritatea contractantă	Specificarea tehnică deplină propusă de către ofertant	Standarde de referință
1	2	3	4	5	6	7
Bunuri/servicii				Part. Number 33265821		
1 Gear Box RDB2B	Gear Box RDB2B replaces old item 331700217	Sweden	BESAM	Part. Number 331700217	331021199	
2 Motor Lenze	PCD	Sweden	BESAM	Part. Number 33262136	33262136	
3 PCD	Key Switch	Sweden	BESAM	Part. Number 33709554	33709554	
4 Key switch	Key Switch	Sweden	BESAM	Part. Number 33264612	33264612	
5 Key	PCD cable	Sweden	BESAM	Part. Number 33655245	33655245	
6 PCD cable	Interface box	Sweden	BESAM	Part. Number 33260051	33260051	
7 Interface box with cable	Battery CDC 4.1 the emergency battery unit	Sweden	BESAM	Part. Number 33265712	33265712	
8 Battery CDC	Lock escape door	Sweden	BESAM	Part. Number 33265216	33265216	
9 Lock	Striking plate	Sweden	BESAM	Part. Number 33244872	33244872	
10 Striking plate	Striking plate	Sweden	BESAM	Part. Number 33246655	33246655	
11 Striking plate	Striking plate	Sweden	BESAM	Part. Number 33244869	33244869	
12 Striking plate	Spare part grease WSP 5040	Sweden	BESAM	Part. Number 33980	33980	
13 Spare part Grease WSP 5040	DPC Board	Sweden	BESAM	Part. Number 33655565	33655565	
14 DPC board	Safety Switches	Sweden	BESAM	Part. Number 3326516236	3326516236	
15 Safety switch UniTurn – 36	Safety Switches	Sweden	BESAM	Part. Number 3326516336	3326516336	
16 Safety switch UniTurn – 36	Safety Switches	Sweden	BESAM	Part. Number 33265599	33265599	
17 Safety switch UniTurn Vertical	Brake unit	Sweden	BESAM	Part. Number 33265021	33265021	
18 Brake unit	Support wheel	Sweden	BESAM	Part. Number 33265265	33265265	
19 Support wheel	V belt 457	Sweden	BESAM	Part. Number 33735271	33735271	
20 V belt	Slipring	Sweden	BESAM	Part. Number 331011681	331011681	
21 Slipring encoder	Carbon brush 2 pcs	Sweden	BESAM	Part. Number 33248427	33248427	
22 Carbon brush – set of 2 pcs	MPU-board CDC 4.1	Sweden	BESAM	Part. Number 331000182	331000182	
23 MPU-Board CDC	Ioa board Assy CDC500	Sweden	BESAM	Part. Number 331015798	331015798	
24 IOA – board	Presence sensor PDR RD3L/Uni	Sweden	BESAM	Part. Number 331013462	331013462	

25 Presence sensor PDR Uni	Safety Battery back-up unit. For continued use of the unit in the event of power failure	Sweden	BESAM	Part. Number 1003567	1003567	
26 Battery back-up unit SW100	Operator Assa Abloy SW100-1 Silent Electro mechanical swing door operator. Specifically designed for internal and sheltered external application on doors 1200 mm and 90 kg	Sweden	BESAM	Part. Number 1005055	1005055	
27 SW100-1 single operator with arm	Radar Sensor SA52	Sweden	BESAM	Part. Number 1702783	1702783	
28 Direction sensing radar SA52	Push button disabled built-in	Sweden	BESAM	Part. Number 33708030	33708030	
29 Push button Disabled built-in disabled persons	Safety switches vert.passive	Sweden	BESAM	Part. Number 33244961	33244961	
30 Vertical tubular safety switch UniTurn 2200 mm	Lable Supervision of child	Sweden	BESAM	Part. Number 1001695/785/86	1001695	
	Emergency break-out right door				1001785	
	Emergency break-out left door				1001786	
31 Signs for escape door and safety – 3 pcs	Multi Sensor Hub	Sweden	BESAM	Part. Number 331700958	331700958	
32 Safety connection box UniTurn	Gear Box RDB2B	Sweden	BESAM	Part. Number 33265821	33265821	
	push arm assembly BK	Sweden	BESAM		1007241BK	
	Security Acces Control Board	Sweden	BESAM		1003554	
	Safety Sensor Board	Sweden	BESAM		1003557	
	Programme selector- To give off/ Hold Open/ Exit Only/ Automatic. Operator by key	Sweden	BESAM		655845	
	Position switch box PSK/PSW-6F	Sweden	BESAM		655806	
	T Switch 10	Sweden	BESAM		1704421	
	Magic Switch, surface mounting box	Sweden	BESAM		1704420	
	3 Position On/Of/Hold open Switch	Sweden	BESAM		1003582	
TOTAL						

Semnat: _____ Numele, Prenumele: Gaina Victor În calitate de: _Administraor_
Ofertantul: _Media Security SRL_ Adresa: __str.bd.Dimitrie Cantemir 5/4_



Specificații de preț

[Acest tabel va fi completat de către ofertant în coloanele 5,6,7,8 și 11 la necesitate, iar de către autoritatea contractantă – în coloanele 1,2,3,4,9,10]

Numărul procedurii de achiziție nr **MTender ID** ocds-b3wdp1-MD-1712652298258__din__30 04 2024__

Obiectul achiziției: **Piese de schimb pentru ușile de tip BESAM (repetat)**

Cod CPV	Denumirea bunurilor/serviciilor	Unitate a de măsură	Canti- tatea	Preț unitar (fără TVA)	Preț unitar (cu TVA)	Suma fără TVA	Suma cu TVA	Termenul de livrare/prestare	Clasificație bugetară (IBAN)	Discount %
1	2	3	4	5	6	7	8	9	10	11
	Gear Box RDB2B replaces old item 331700217	buc	4	39630	47556	158520	190224	35-50 zile lucratoare dupa semnare contract		
	PCD	buc	2	44010	52812	88020	105624	35-50 zile lucratoare dupa semnare contract		
	Key Switch	buc	1	3540	4248	3540	4248	35-50 zile lucratoare dupa semnare contract		
	Key Switch	buc	1	735	882	735	882	35-50 zile lucratoare dupa semnare contract		
	PCD cable	buc	1	2910	3492	2910	3492	35-50 zile lucratoare dupa semnare contract		
	Interface box	buc	1	9060	10872	9060	10872	35-50 zile lucratoare dupa semnare contract		
	Battery CDC 4.1 the emergency battery unit	buc	2	20670	24804	41340	49608	35-50 zile lucratoare dupa semnare contract		
	Lock escape door	buc	2	47310	56772	94620	113544	35-50 zile lucratoare dupa semnare contract		
	Striking plate	buc	2	7410	8892	14820	17784	35-50 zile lucratoare dupa semnare contract		
	Striking plate	buc	4	8760	10512	35040	42048	35-50 zile lucratoare dupa semnare contract		
	Striking plate	buc	2	4140	4968	8280	9936	35-50 zile lucratoare dupa semnare contract		
	Spare part grease WSP 5040	buc	2	165	198	330	396	35-50 zile lucratoare dupa semnare contract		

	DPC Board	buc	2	115710	138852	231420	277704	35-50 zile lucratoare dupa semnare contract		
	Safety Switches	buc	2	31500	37800	63000	75600	35-50 zile lucratoare dupa semnare contract		
	Safety Switches	buc	4	27000	32400	108000	129600	35-50 zile lucratoare dupa semnare contract		
	Safety Switches	buc	4	51060	61272	204240	245088	35-50 zile lucratoare dupa semnare contract		
	Brake unit	buc	4	46050	55260	184200	221040	35-50 zile lucratoare dupa semnare contract		
	Support wheel	buc	4	8760	10512	35040	42048	35-50 zile lucratoare dupa semnare contract		
	V belt 457	buc	8	1290	1548	10320	12384	35-50 zile lucratoare dupa semnare contract		
	Slipring	buc	6	129870	155844	779220	935064	35-50 zile lucratoare dupa semnare contract		
	Carbon brush 2 pcs	buc	1	2970	3564	2970	3564	35-50 zile lucratoare dupa semnare contract		
	MPU-board CDC 4.1	buc	4	41160	49392	164640	197568	35-50 zile lucratoare dupa semnare contract		
	Ioa board Assy CDC500	buc	2	15150	18180	30300	36360	35-50 zile lucratoare dupa semnare contract		
	Presence sensor PDR RD3L/Uni	buc	1	9570	11484	9570	11484	35-50 zile lucratoare dupa semnare contract		
	Safety Baterry back-up unit. For continued use of the unit in the event of power failure	buc	4	3570	4284	14280	17136	35-50 zile lucratoare dupa semnare contract		
	Operator Assa Abloy SW100-1 Silent Electro mechanical swing door operator. Specifically designed for internal and sheltered external application on doors 1200 mm and 90 kg	buc	6	20190	24228	121140	145368	35-50 zile lucratoare dupa semnare contract		
	Radar Sensor SA52	buc	1	3270	3924	3270	3924	35-50 zile lucratoare dupa semnare contract		
	Push button disabled built-in	buc	2	22590	27108	45180	54216	35-50 zile lucratoare dupa semnare contract		
	Safety switches vert.passive	buc	2	29010	34812	58020	69624	35-50 zile lucratoare dupa semnare contract		
	Lable Supervision of child	buc	2	108	129,6	216	259,2	35-50 zile lucratoare dupa semnare contract		
	Emergency break-out right door	buc	2	108	129,6	216	259,2	35-50 zile lucratoare dupa semnare contract		
	Emergency break-out left door	buc	2	108	129,6	216	259,2	35-50 zile lucratoare dupa semnare contract		

	Multi Sensor Hub	buc	2	18210	21852	36420	43704	35-50 zile lucratoare dupa semnare contract		
	Gear Box RDB2B	buc	1	83910	100692	83910	100692	35-50 zile lucratoare dupa semnare contract		
	push arm assembly BK	buc	1	3090	3708	3090	3708	35-50 zile lucratoare dupa semnare contract		
	Security Acces Control Board	buc	1	2250	2700	2250	2700	35-50 zile lucratoare dupa semnare contract		
	Safety Sensor Board	buc	1	2058	2469,6	2058	2469,6	35-50 zile lucratoare dupa semnare contract		
	Programme selector- To give off/ Hold Open/ Exit Only/ Automatic. Operator by key	buc	1	1050	1260	1050	1260	35-50 zile lucratoare dupa semnare contract		
	Position switch box PSK/PSW-6F	buc	1	480	576	480	576	35-50 zile lucratoare dupa semnare contract		
	T Switch 10	buc	1	6420	7704	6420	7704	35-50 zile lucratoare dupa semnare contract		
	Magic Switch, surface mounting box	buc	1	720	864	720	864	35-50 zile lucratoare dupa semnare contract		
	3 Position On/Of/Hold open Switch	buc	1	225	270	225	270	35-50 zile lucratoare dupa semnare contract		
	TOTAL					2659296	3191155			

Semnat: _____ Numele, Prenumele: _Gaina Victor_ În calitate de: _Administraor_

Ofertantul: _Media Security SRL_ Adresa: __str.bd.Dimitrie Cantemir 5/4_



ORDIN DE PLATA		3362	DATA EMITERII	29 aprilie 2024	TIP DOC : 1
PLATITI:	23000-00	LEI		Douăzeci Trei Mii LEI și 00 Ban	
PLĂTITOR		CODUL IBAN		MD48AG000000022512901602	
(R) MEDIA SECURITY SRL		CODUL FISCAL:		1006600023985	
PRESTATORUL PLĂTITOR:		BC'MAIB'S.A. suc.'Tighina'			
BENEFICIAR		CODUL IBAN		MD53VI000002224708416MDL	
(R) IS AEROPORTUL INTERNATIONAL CHISINAU		CODUL FISCAL:		1002600007189	
PRESTATORUL BENEFICIAR:					
B.C.'VICTORIABANK'S.A.					
DESTINAȚIA PLĂȚII:			TIPUL TRANSFERULUI NORMAL/URGENT		
GARANTIA PENTRU OFERTA repetata IN MARIME DE 2 PROCENTE additional CONF noii PROCEDURII DE ACHIZITII PUBLICE NR ocds-b3wdp1-MD-1712652298258 DIN 29.04.24			N		
COD TRANZACȚIE:	DATA PRIMIRII:	DATA EXECUTĂRII:	L.Ș.		
001	29 aprilie 2024 11:30:00	29 aprilie 2024 11:31:00	Victor Gaina		
Ora Primirii 1 1 : 3 0			Victor Gaina		
SEMNĂTURA PRESTATORULUI			SEMNĂTURILE EMITENTULUI		
			L.Ș. internet-banking		
MOTIVUL REFUZULUI:					

ORDIN DE PLATA		3339	DATA EMITERII	03 aprilie 2024	TIP DOC : 1
PLATITI:	40000-00	LEI	Patruzeci Mii LEI și 00 Ban		
PLĂTITOR		CODUL IBAN		MD48AG000000022512901602	
(R) MEDIA SECURITY SRL		CODUL FISCAL:		1006600023985	
PRESTATORUL PLĂTITOR:		BC'MAIB'S.A. suc.'Tighina'			
BENEFICIAR		CODUL IBAN		MD53VI000002224708416MDL	
(R) IS AEROPORTUL INTERNATIONAL CHISINAU		CODUL FISCAL:		1002600007189	
PRESTATORUL BENEFICIAR:		B.C.'VICTORIABANK'S.A.			
DESTINAȚIA PLĂȚII:			TIPUL TRANSFERULUI NORMAL/URGENT		
GARANTIA PENTRU OFERTA IN MARIME DE 2 PROCENTE CONF PROCEDURII DE ACHIZITII PUBLICE NR ocds-b3wdp1-MD- 1710242408069 DIN 12.03.24			N		
COD TRANZACȚIE:	DATA PRIMIRII:	DATA EXECUTĂRII:	L.Ș.		
001	03 aprilie 2024 17:17:00	03 aprilie 2024 17:19:00	Victor Gaina		
Ora Primirii		17:17	Victor Gaina		
SEMNĂTURA PRESTATORULUI			SEMNĂTURILE EMITENTULUI		
			L.Ș. internet-banking		
MOTIVUL REFUZULUI:					

Certificate of Approval

This is to certify that the Management System of:

ASSA ABLOY Entrance Systems AB

Lodjursgatan 10, 261 44 Landskrona, Sweden

has been approved by LRQA to the following standards:

ISO 9001:2015



P.G. Cornelissen - Area Manager North Europe

Issued by: LRQA Sverige AB

for and on behalf of: Lloyd's Register Quality Assurance Limited

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Current issue date: 9 May 2019

Expiry date: 8 May 2022

Certificate identity number: 10184419

Original approval(s):

ISO 9001 – 12 June 1998

Approval number(s): ISO 9001 – 00003313

The scope of this approval is applicable to:

Manufacture of automatic door systems and distribution of spare parts and accessories.



001

Certificate Schedule

Certificate identity number: 10184419

Location	Activities
Pedestrian Door Solutions Lodjursgatan 10, 261 44 Landskrona, Sweden	ISO 9001:2015 Management of Sales, Supply Chain, Field Operation, Design and Development of automatic door systems.
ASSA ABLOY Entrance Systems AB Unit 1, No. 29 HuaHong Street, SuHong East Road, Suzhou Industrial Park 苏州工业园区苏虹东路华虹街29号的1号厂房东部, Suzhou, China	ISO 9001:2015 Manufacture of Automatic Door Systems and stockholding of Spare Parts and Accessories. Manufacture of Automatic Door Systems and stockholding of Spare Parts and Accessories.
Pedestrian Door Solutions ASSA ABLOY Entrance Systems (Suzhou) Co., Ltd., Unit I, No 29 Huahong Street, Suzhou Industrial Park, Suzhou, Jiangsu 215126, China	ISO 9001:2015 Manufacture of Automatic Door Systems and stockholding of Spare Parts and Accessories.
Pedestrian Door Solutions ASSA ABLOY ES Production s. r. o., Ostrov u Stribra 11, 349 01 Kostelec, Czech Republic	ISO 9001:2015 Manufacture of automatic door systems and distribution of spare parts and accessories.



001

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	ASSA ABLOY Entrance Systems AB
Program holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-ASA-20220076-IBC1-EN
Issue date	18.08.2022
Valid to	17.08.2027

ASSA ABLOY RD600, Revolving Door **ASSA ABLOY Entrance Systems**

www.bau-umwelt.com / <https://epd-online.com>



1. General Information

ASSA ABLOY Entrance Systems

Program holder

IBU - Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-ASA-20220076-IBC1-EN

This Declaration is based on the Product Category Rules:

IBU: PCR Automatic doors, automatic gates and revolving door systems (door systems) Version 1.6 (11. 2017). (PCR tested and approved by the independent expert committee)

Issue date

18.08.2022

Valid to

17.08.2027



Dipl.-Ing. Hans Peters
(President of IBU e.V.)



Dr. Alexander Röder
(Managing Director of IBU e.V.)

ASSA ABLOY RD600, Revolving Door

Owner of the Declaration

ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

Declared product / Declared unit

This declaration represents 1 revolving door consisting of 2 door leaves and a surrounding frame with an internal diameter of 4.8 m and an internal height of 2.2 m

Scope:

This declaration and its LCA study are relevant to the revolving door ASSA ABLOY RD600. The final assembly and production stage occurs in Ostrov u Stribra, Czech Republic at ASSA ABLOY ES Production s.r.o at: D5 Logistic Park 34901 Ostrov u Stribra, Czech Republic. Components are sourced from international tier one suppliers. ASSA ABLOY RD600 door sizes vary according to project requirements; a door with an internal diameter of 4.8 m is used in this declaration. The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as EN 15804.

Verification

The CEN Standard *EN 15804* serves as the IBU PCR
Independent verification of the declaration and data
according to *ISO 14025*

☐ internally ☒ externally



Dr. Wolfram Trinius
(Independent tester appointed by SVA)

2. Product

2.1 Product description

Product name: ASSA ABLOY RD600

Product characteristics:

Two-wing high capacity revolving door.

Pedestrian automatic revolving doors are installations that serve to automatically regulate the flow of people in residential and non-residential buildings while providing high thermal performance.

- Automatic revolving doors are made up of various assemblies mainly consisting of a support structure, glazing, drive unit, controller and safety equipment.
- Revolving doors also feature elements that are designed to simplify their installation, operation, and maintenance.
- Revolving doors are typically made of aluminium and glass and are available in several designs for a range of requirements in diverse building types.

The ASSA ABLOY RD600 range is the optimal solution for high pedestrian traffic flow whilst maintaining high standard of safety for the user. The two-wing automatic

revolving door has the largest compartments in relation to the diameter of the revolving door within our portfolio. A unique design option is additional automatic sliding door in the centre of the unit, providing even more flexibility from the revolving door. The rotating section of the ASSA ABLOY RD600 has two enclosed triangular display sections, ideal for campaigns, information or advertising.

The door has 4 primary parts:

- 1) Door leaves
- 2) Outer walls
- 3) Canopy
- 4) Operating system

The ASSA ABLOY RD600 has been designed to meet all operational and safety requirements and is certified by third party to fulfill the European Directives and the standards issued by the European Standardization Committee (CEN).

ASSA ABLOY

For the placing on the market in the European Union/European Free Trade Association (EU/EFTA) (excl. Switzerland), Switzerland and Turkey the following European directives apply to the ASSA ABLOY RD600:

- 2014/30/EU Electromagnetic Compatibility Directive (EMCD)
- 2006/42/EC Machinery Directive (MD)
- 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment with the applicable amendments (RoHS).

These directives provide for CE marking of the product and issuing a Declaration of Conformity.

Harmonized European standards, which have been applied:

- EN 60335-1 Household and similar electrical appliances -Safety -Part 1: General requirements
- EN 60335-2-103 Household and similar electrical appliances -Safety -Part 2: Particular requirements for drives for gates, doors and windows
- EN 61000-6-2 Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
- EN 61000-6-3 Electromagnetic compatibility (EMC) — Part 6-3: Generic standards — Emission standard for residential, commercial and light-industrial environments
- EN ISO 13849-1 Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design
- EN 16005 Power operated pedestrian door sets - Safety in use -Requirements and test methods.

Other standards or technical specifications, which have been applied:

- IEC 60335-1 Household and similar electrical appliances -Safety -Part 1: General requirements
- IEC 60335-2-103 Household and similar electrical appliances Safety Part 2-103: Particular requirements for drives for gates, doors and windows.

Disposal of the product is subject to the Waste from Electrical and Electronic Equipment (WEEE) Directive within Europe, Directive 2012/19/EU together with the RoHS Directive 2011/65/EU and its amending Directive 2015/863.

For the application and use the respective national provisions apply.

2.2 Application

The two-wing, high-capacity ASSA ABLOY RD600 is an automatic revolving door developed to provide draught free access to buildings. The door is designed to offer continuous use, a high degree of safety and maximum lifetime. The system is self-adjusting to the effects caused by normal variations in the weather conditions and to minor friction changes caused by e.g. dust and dirt. The door can be used indoors or outdoors.

Automatic revolving doors are utilized to provide entrance and exit capabilities for many different building types.

Typical applications are found in:

- Private buildings
- Public buildings
- Healthcare facilities
- Hospitality facilities
- Transportation
- Sporting venues.

2.3 Technical Data

The table presents the technical properties of the ASSA ABLOY RD600

Technical data

Name	Value	Unit
*U-value	4.5	W/(m²K)
- closed position	5.4	
- open position		
Power input "Standby"	60	W
Power input "Operation"	180	W

* Heat transfer Coefficient of the entire door (U-value), in accordance with EN-ISO 10077-1 :2017 and EN-ISO 10077-2 :2017 Thermal performance of windows, doors and shutters - Calculation of thermal transmittance

Features

The declared door has a size (W x H) 4800 mm x 2200 mm (internal height)

Outer wall: clear laminated safety glass 4+0.76+4 mm (/EN12600/ 1B1) (standard)

Door leaves: standard -clear laminated safety glass 3+0.38+3 mm (/EN12600/ 2B2)

Door sections: aluminium profiles Optional: Powder-coated finish (RAL colours), stainless steel cladding

Ceiling: white laminated panels or aluminium panels, Dust protection roof: white laminated panels.

2.4 Delivery status

Revolving door unit with an internal diameter of 4.8 m, internal height of 2.2 m and an external height 2.54 m, is delivered ready for installation.

2.5 Base materials / Ancillary materials

The average composition for ASSA ABLOY RD600 is as follows:

Component	Percentage in mass (%)
Aluminium	39.21
Brass	0.08
Copper	0.04
Glass	35.98
Plastics	3.37
Stainless steel	0.69
Steel	10.14
Electronic	1.77
Electro mechanics	0.67
Paper	0.00
Wood	7.88
Others	0.17
Total	100

This product/article/at least one partial article contains substances listed in the candidate list (date: 05.08.2022) exceeding 0.1 percentage by mass: no.

This product/article/at least one partial article contains other CMR substances in categories 1A or 1B which are not on the candidate list, exceeding 0.1 percentage by mass: no.

Biocide products were added to this construction product or it has been treated with biocide products (this then concerns a treated product as defined by the (EU) Ordinance on Biocide Products No. 528/2012): no.

2.6 Manufacture

The revolving door is manufactured in two locations, Ostrov Czech Republic and Suzhou, China respectively. The Ostrov location is represented in this declaration. Profiles are provided by tier one supplier and are delivered to the factory. The profiles are bent and machined. The products are surface treated; either anodized (externally) or powder coated (internally). Other parts as electronics, glass, etc. arrives from tier one suppliers. The parts are encased in pine crates and forwarded on a standard wooden pallet to on-site installation. The certified quality management system, *EN ISO 9001*, ensures high standards.

Offcuts and scraps during the manufacturing process are directed to a recycling unit. Waste is sent for disposal.

Waste codes according to *European Waste Catalogue and Hazardous Waste List (EWC)* - Valid from 1 January 2002:

EWC 12 01 01 ferrous metal filings and turnings
EWC 12 01 03 non-ferrous metal filings and turnings
EWC 08 02 01 waste coating powders
EWC 12 01 05 plastics

2.7 Environment and health during manufacturing

ASSA ABLOY Entrance Systems AB is committed to producing and distributing door opening solutions with minimal environmental impact, where health & safety is the primary focus for all employees and associates.

- Environmental operations, Greenhouse gases, energy, water, waste, volatile organic compound (VOC), surface treatment and Health & Safety are being routinely monitored. Inspections, audits, and reviews are conducted periodically to ensure that applicable standards are met and environmental management program effectiveness is evaluated.
- Code of Conduct covers human rights, labor practices and decent work. ASSA ABLOY Entrance Systems AB's management is aware of their roles and responsibilities, providing appropriate training, supporting accountability and recognizing outstanding performance.
- Preparation conditions (including the process of powder coating) in the factory do not require special health and safety measures. Standard health and safety measures (work gloves, hearing protection, safety shoes, dust mask when sanding and milling, dust extraction, etc.) are observed where appropriate.
- Water and soil contamination does not occur and all production related waste is processed internally in the appropriate manner.

2.8 Product processing/Installation

The revolving door components are supplied and ready for installation. The frame as well as the door leaves and central column are assembled and installed

on-site. The components are assembled using simple tools including drills and hand tools. The installation is performed by trained and qualified installation technicians.

2.9 Packaging

Packaging exists for the purpose of protection during transportation. ASSA ABLOY RD600 revolving door components are initially packaged in plastic tarpaulin, polystyrene and corrugated cardboard. Finally, a revolving door is placed on a standard wooden pallet and encased in a pine crate. All of these packaging components are standard industry types and while the cardboard is recyclable the pallets are available for immediate reuse upon delivery.-The wood material is FSC certified.

Material	Value (%)
Cardboard/paper	1.66
Wood	97.86
Plastics	0.48
Total	100.0

All materials incurred during installation are directed to a recycling unit.

Waste codes according to *European Waste Catalogue and Hazardous Waste List (EWC)* - Valid from 1 January 2002:

EWC 15 01 01 paper and cardboard packaging
EWC 15 01 02 plastic packaging
EWC 15 01 03 wooden packaging

2.10 Condition of use

The best way to remove dust and dirt from the ASSA ABLOY RD600 and to maintain the quality of the enamel layer is to clean, the surfaces three times/year (once/four months period) with gentle (pH 5-9), non-polishing detergent and water. Use a soft non-abrasive sponge.

To avoid damage to the profiles the brushes must be vacuum-cleaned weekly. Regular inspections performed by a trained and qualified person for a minimum of one visit per year, two are recommended according to the *EN16005*.

- Do not expose doors or profiles to alkalis. Both aluminum and glass are sensitive to alkalis.
- Do not clean with high-pressure water. Operator, programme selector and sensor may be damaged and water may enter the profiles.
- Do not use detergents or abrasive additives.
- Do not scrub with materials that will cause mechanical damage.

2.11 Environment and health during use

There is no harmful emissive potential. No damage to health or impairment is expected under normal use corresponding to the intended use of the product.

2.12 Reference service life

The product has a reference service life of approximately 10.000.000 cycles, or 15 years of average daily use with the recommended maintenance and service program. For this EPD a lifetime of 15 years was considered.

2.13 Extraordinary effects

Fire

Not applicable.

Water

ASSA ABLOY

Contains no substances that have any impact on water in case of a flood. Electric operation of the device will be influenced negatively.

Mechanical destruction

No danger to the environment can be anticipated during mechanical destruction.

2.14 Re-use stage

The product is possible to be re-used during the reference service life and be moved from one door to another. All recyclable materials are directed to a recycling unit. The components made of aluminum alloy and steel can be recycled. The plastic components can be used for energy recovery within a waste incineration process.

Waste codes according to *European Waste Catalogue and Hazardous Waste List (EWC)* - Valid from 1 January 2002:

EWC 16 02 13* discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12
EWC 17 02 01 wood
EWC 17 02 03 plastic
EWC 17 04 01 copper, bronze, brass
EWC 17 04 02 aluminium
EWC 17 04 05 iron and steel
EWC 17 04 11 cables with the exception of those outlined in 17 04 10

Note: Disposal of the motor is subject to the WEEE Directive within Europe, *Directive /2012/19/EU/*

2.15 Disposal

The requirements on waste disposal and recycling listed in the European Waste Catalogue (*EWC*) should be followed.

The product can be mechanically dissembled to separate the different materials. The majority of components are steel, glass and aluminium, which will be recycled in case of steel and aluminium and disposed in case of glass. The plastic components are used for energy recovery in an incineration plant.

2.16 Further information

For further information and additional contact:

ASSA ABLOY Entrance Systems AB

Lodjursgatan 10

SE-261 44 Landskrona

Sweden

www.assaabloyentrance.com

3. LCA: Calculation rules

3.1 Declared Unit

The declaration refers to the functional unit of 1 piece of ASSA ABLOY RD600 ((W x H) 5400 mm x 2600 mm (Internal height)) as specified in Part B requirements on the *IBU PCR Part B*.

Declared unit

Name	Value	Unit
Mass (without packaging)	2147.22	kg
Mass packaging (paper wood, and plastics)	530.37	kg
Declared unit for sectional door systems (dimensions acc. to this PCR))	1	piece

3.2 System boundary

Type of the EPD: cradle to gate - with options
The following life cycle stages were considered:

Production stage:

- A1 – Raw material extraction and processing
- A2 – Transport to the manufacturer and
- A3 – Manufacturing

Construction stage:

- A4 - Transport from the gate to the site
- A5 – Packaging waste processing

Use stage related to the operation of the building includes:

- B6 – Operational energy use

End-of-life stage:

- C1 - De-construction/demolition
- C2 – Transport to waste processing,
- C3 – Waste processing for recycling and
- C4 – Disposal (landfill, waste for incineration).

This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of-waste state or disposal of final residues.

- Benefits and loads beyond the system boundaries: D – Declaration of all benefits and loads.

3.3 Estimates and assumptions

Transportation: Data on the mode of transport and distances, as reported by suppliers were used for those materials and parts contributing more than 2 % of the total product mass. In case of unknown transport distances for parts and materials, contributing less than 2 % to the total product mass, transport by road over an average distance of 500 km was assumed.

Use stage:

For the use phase, it is assumed that the rapid roll door is used in the European Union, thus an average European electricity grid mix is considered within this stage.

According to the most representative scenario, the operating hours of the product are accounted for 9 hours in on mode, 5 hours in stand-by-mode and finally 10 hours in standby mode per day (350 days per year in use); the power consumption throughout the whole life cycle is 12967 kWh.

EoL:

In the End-of-Life stage, for all the materials from the product which can be recycled (steel, aluminium, electronic parts, electro-mechanics, copper, stainless steel and brass), a recycling scenario with a 100 % collection rate was assumed. The plastic components are sent for energy recovery within a waste incineration process.

EoL is assumed to happen within EU-28. Furthermore, a transport distance by truck of 100 km has been assumed in the model.

3.4 Cut-off criteria

In the assessment, all available data from the production process are considered, i.e. all raw materials used, auxiliary materials (e.g. lubricants), and electric power consumption - including material and energy flows contributing less than 1 % of mass or energy (if available). In case a specific flow contributing less than 1 % in mass or energy is not available, worst case assumption proxies are selected to represent the respective environmental impacts.

Impacts relating to the production of machines and facilities required during production are out of the scope of this assessment.

3.5 Background data

For life cycle modelling of the considered product, the *GaBi 10 Software System for Life Cycle Engineering*, developed by Sphera, is used *GaBi 10 2021a*. The *GaBi*-database contains consistent and documented datasets which are documented in the online *GaBi*-documentation *GaBi 10 2021b*. To ensure comparability of results in the LCA, the basic data of *GaBi* database were used for energy, transportation and auxiliary materials.

3.6 Data quality

The requirements for data quality and background data correspond to the specifications of the *IBU PCR Part A*.

Sphera performed a variety of tests and checks during the entire project to ensure high quality of the completed project. This obviously includes an extensive review of project-specific LCA models as well as the background data used.

The technological background of the collected data reflects the physical reality of the declared products. The datasets are complete and conform to the system boundaries and the criteria for the exclusion of inputs and outputs.

All relevant background datasets are taken from the *GaBi 10* software database.

3.7 Period under review

The period under review is 2019 (12-month average).

3.8 Allocation

Regarding incineration, the software model for the waste incineration plant (WIP) is adapted according to the material composition and heating value of the combusted material. In this EPD, the following specific life cycle inventories for the WIP are considered for:

- Waste incineration of paper
- Waste incineration of Plastic
- Waste incineration of Wood

Regarding the recycling material of metals, the metal parts in the EoL are declared as end-of-waste status. Thus, these materials are considered in module D.

Specific information on allocation within the background data is given in the *GaBi* dataset documentation.

3.9 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account. *GaBi 10 2021b* serves as background database for the calculation.

4. LCA: Scenarios and additional technical information

The following technical information is a basis for the declared modules or can be used for developing specific scenarios in the context of a building assessment if modules are not declared (MND).

Information on describing the biogenic Carbon Content at factory gate

Name	Value	Unit
Biogenic Carbon Content in product	84.580	kg C
Biogenic Carbon Content in accompanying packaging	263.300	kg C

Transport to the building site (A4)

Name	Value	Unit
Truck transport		
Kg of fuel diesel with maximum load (27t payload)	27.505	kg/100km
Transport distance truck (primary target market is EU 28)	835	km
Capacity utilization (incl. empty runs) of truck	61	%
Transport by ship	0	km

Installation into the building (A5)

Name	Value	Unit
Output substances following waste treatment on site (paper/cardboard packaging)	8.840	kg
Output substances following waste treatment on site (wood packaging)	519	kg
Output substances following waste treatment on site (plastic packaging)	2.530	kg

Reference service life

Name	Value	Unit
Reference service life	15	a

Operational energy use (B6)

Name	Value	Unit
Electricity consumption per RSL (15 years, 350 days per year)	12967	kWh
Hours per day in on mode	9	h
Hours per day in stand-by mode	5	h
Hours per day in idle mode	10	h
Power consumption – on mode	180	W
Power consumption – stand-by mode	60	W
Power consumption – idle mode	55	W

For the remaining days (15 days) the power is being switched off.

*Total energy consumed during the whole product life was calculated using following formula:

$$(W_{active_mode} \cdot h_{active_mode} + W_{idle_mode} \cdot h_{idle_mode} + W_{stand_by_mode} \cdot h_{stand_by_mode}) \cdot Life_span \cdot days_year \cdot 0.001$$

Where:

- W_{active_mode} - Energy consumption in active mode in W
- h_{active_mode} - Operation time in active mode in hours
- W_{idle_mode} - Energy consumption in idle mode in W

- h_{idle_mode} - Operation time in idle mode in hours
- $W_{stand_by_mode}$ - Energy consumption in stand-by mode in W
- $h_{stand_by_mode}$ - Operation time in stand-by mode in hours
- $Life_span$ - Reference service life of product
- $days_year$ - Operation days per year
- 0.001 - Conversion factor from Wh to kWh.

End of life (C1-C4)

Name	Value	Unit
Collected separately	2147.220	kg
Incineration of plastic parts	72.309	kg
Incineration of paper/wood	169.165	kg
Recycling aluminium, steel, copper, electronic, electro-mechanics, stainless steel and brass	1129.228	kg
Landfill	776.517	kg

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Name	Value	Unit
Collected separately waste type (including packaging)	1901.073	kg
Recycling aluminium	44.286	%
Recycling brass	0.087	%
Recycling copper	0.041	%
Recycling stainless steel	0.783	%
Recycling steel	11.451	%
Recycling electronic	1.998	%
Recycling electro mechanics	0.753	%
Incineration of plastic parts	3.937	%
Incineration of paper	0.465	%
Incineration of wood	36.199	%

5. LCA: Results

Results shown are calculated according to EN 15804+A2.

Note:

EP-freshwater: This indicator has been calculated as “kg P eq” as required in the characterization model (EUTREND model, Struijs et al., 2009b, as implemented in ReCiPe; <http://eplca.jrc.ec.europa.eu/LCDN/developerEF.xhtml>).

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END-OF-LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement ⁽¹⁾	Refurbishment ⁽¹⁾	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	X	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One piece of RD600

Core Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ -Eq.]	1.11E+04	1.35E+02	9.53E+02	5.25E+03	0.00E+00	1.29E+01	4.92E+02	8.90E+01	-6.51E+03
GWP-fossil	[kg CO ₂ -Eq.]	1.22E+04	1.34E+02	1.22E+01	5.22E+03	0.00E+00	1.29E+01	1.50E+02	8.97E+01	-6.49E+03
GWP-biogenic	[kg CO ₂ -Eq.]	-1.15E+03	-2.29E-01	9.41E+02	1.74E+01	0.00E+00	-2.20E-02	3.43E+02	-6.99E-01	-1.24E+01
GWP-luluc	[kg CO ₂ -Eq.]	8.38E+00	1.09E+00	1.99E-03	7.56E+00	0.00E+00	1.04E-01	6.78E-03	3.02E-02	-2.66E+00
ODP	[kg CFC11-Eq.]	3.00E-08	1.61E-14	1.65E-14	1.15E-10	0.00E+00	1.55E-15	6.32E-14	7.56E-14	1.18E-09
AP	[mol H ⁺ -Eq.]	4.92E+01	1.38E-01	1.10E+00	1.15E+01	0.00E+00	1.32E-02	4.25E-01	7.96E-02	-3.19E+01
EP-freshwater	[kg P-Eq.]	1.50E-02	4.08E-04	3.31E-06	1.39E-02	0.00E+00	3.92E-05	1.01E-05	2.23E-05	-3.28E-03
EP-marine	[kg N-Eq.]	8.89E+00	4.01E-02	2.71E-01	2.56E+00	0.00E+00	3.85E-03	1.05E-01	2.06E-02	-3.86E+00
EP-terrestrial	[mol N-Eq.]	9.75E+01	4.83E-01	3.00E+00	2.69E+01	0.00E+00	4.64E-02	1.19E+00	2.55E-01	-4.20E+01
POCP	[kg NMVOC-Eq.]	2.56E+01	1.11E-01	8.81E-01	7.01E+00	0.00E+00	1.07E-02	3.40E-01	6.09E-02	-1.21E+01
ADPE	[kg Sb-Eq.]	1.61E+05	9.62E-06	2.71E-07	1.51E-03	0.00E+00	9.24E-07	9.17E-07	1.37E-06	-1.17E-01
ADPF	[MJ]	3.30E-01	1.79E+03	2.45E+01	9.18E+04	0.00E+00	1.72E+02	7.65E+01	1.55E+02	-8.39E+04
WDP	[m³ world-Eq deprived]	9.38E+02	1.20E+00	3.36E+01	1.14E+03	0.00E+00	1.15E-01	2.70E+01	9.59E+00	-1.00E+03
Caption	GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential									

RESULTS OF THE LCA - RESOURCE USE: One piece of RD600

Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
PERE	[MJ]	3.96E+04	0.00E+00	1.01E+04	0.00E+00	0.00E+00	0.00E+00	3.23E+03	0.00E+00	0.00E+00
PERM	[MJ]	1.33E+04	0.00E+00	-1.01E+04	0.00E+00	0.00E+00	0.00E+00	-3.21E+03	0.00E+00	0.00E+00
PERT	[MJ]	5.29E+04	1.00E+02	4.20E+00	4.07E+04	0.00E+00	9.65E+00	1.84E+01	2.54E+01	-3.52E+04
PENRE	[MJ]	1.57E+05	0.00E+00	7.28E+01	0.00E+00	0.00E+00	0.00E+00	3.76E+03	0.00E+00	0.00E+00
PENRM	[MJ]	3.73E+03	0.00E+00	-4.83E+01	0.00E+00	0.00E+00	0.00E+00	-3.69E+03	0.00E+00	0.00E+00
PENRT	[MJ]	1.61E+05	1.79E+03	2.45E+01	9.18E+04	0.00E+00	1.72E+02	7.65E+01	1.55E+02	-8.40E+04
SM	[kg]	2.43E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m³]	8.08E+01	1.16E-01	7.76E-01	4.70E+01	0.00E+00	1.12E-02	6.37E-01	2.36E-01	-8.71E+01
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water									

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One piece of RD600

Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
HWD	[kg]	3.82E-04	8.32E-05	6.44E-08	3.80E-05	0.00E+00	7.99E-06	2.17E-07	1.92E-06	-7.18E-05
NHWD	[kg]	1.60E+03	2.74E-01	5.79E+00	6.51E+01	0.00E+00	2.63E-02	1.60E+01	5.93E+02	-1.57E+03
RWD	[kg]	1.07E+01	2.21E-03	7.55E-04	1.39E+01	0.00E+00	2.13E-04	4.44E-03	2.78E-03	-5.24E+00
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	0.00E+00	0.00E+00	5.12E+02	0.00E+00	0.00E+00	0.00E+00	1.88E+03	0.00E+00	0.00E+00
MER	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	2.53E+03	0.00E+00	0.00E+00	0.00E+00	1.25E+03	0.00E+00	7.86E-02
EET	[MJ]	0.00E+00	0.00E+00	3.58E+03	0.00E+00	0.00E+00	0.00E+00	1.88E+03	0.00E+00	1.48E-01
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EEE = Exported thermal energy									

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: One piece of RD600

Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
PM	[Disease Incidence]	4.66E-04	8.20E-07	4.73E-06	9.67E-05	0.00E+00	7.87E-08	2.02E-06	9.88E-07	-3.34E-04
IR	[kBq U235-Eq.]	1.70E+03	3.20E-01	9.14E-02	2.28E+03	0.00E+00	3.07E-02	6.36E-01	2.67E-01	-1.05E+03
ETP-fw	[CTUe]	7.90E+04	1.26E+03	2.64E+01	3.93E+04	0.00E+00	1.21E+02	5.51E+01	8.12E+01	-2.90E+04
HTP-c	[CTUh]	3.66E-05	2.65E-08	6.55E-08	1.08E-06	0.00E+00	2.54E-09	2.65E-08	1.12E-08	-2.19E-05
HTP-nc	[CTUh]	1.43E-04	1.36E-06	5.66E-06	3.99E-05	0.00E+00	1.31E-07	2.33E-06	1.21E-06	-7.74E-05
SQP	[-]	1.44E+05	6.27E+02	4.73E+00	2.92E+04	0.00E+00	6.02E+01	1.94E+01	3.60E+01	-5.12E+03
Caption	PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index									

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

6. LCA: Interpretation

This chapter contains an interpretation of the Life Cycle Impact Assessment categories. Stated percentages in the whole interpretation are related to the overall life cycle, excluding credits (module D).

The production stage (modules A1-A3) contributes between 43.64 % and 99.62 % to the overall results for all the environmental impact assessment categories hereby considered.

Within the production stage, the main contribution for all the impact categories is the production of steel, glass and aluminum mainly due to the energy consumption in these processes. These three materials accounts for approx. 85 % to the overall mass of the product, therefore, the impacts are in line with the mass composition of the product. The environmental impacts for the transport (A2) have a negligible impact within this stage.

To reflect the use stage (module B6), the energy consumption was included, and it has a major contribution for all the impact assessment categories considered - between 20.79 % and 23.71 %, with the exception of ODP (0.4 %) and ADPF (0.46 %). This is a result of 9 hours of operation in on mode, 5 hours in stand-by mode and 10 hours in idle mode per day and per 350 days in a year.

In the end-of-life stage, there are loads and benefits (module D, negative values) considered. The benefits are considered beyond the system boundaries and are declared for the recycling potential of the metals and for the credits from the incineration process (energy substitution).

7. Requisite evidence

Not applicable in this EPD.

8. References

Standards, norms, directives:

CPR

Regulation (EU) No. 305/2011, Construction Product Regulation (CPR)- laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC

DIN EN 1627

DIN EN 1627:2021-11, Pedestrian doorsets, windows, curtain walling, grilles and shutters - Burglar resistance - Requirements and classification

DIN EN 12600

DIN EN 12600:2003-04, Glass in building - Pendulum tests - Impact test method and classification for flat glass;

DIN EN ISO 14025

DIN EN ISO 14025:2010, Environmental labels and declarations - Type III environmental declarations - Principles and procedures

DIN EN 60335-1

DIN EN 60335-1:2020, Household and similar electrical appliances - Safety - Part 1: General requirements

DIN EN 60335-2

DIN EN 60335-2:2016, Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows

EN 61000-6-2

EN 61000-6-2:2005, Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments

EN 61000-6-3

EN 61000-6-3:2007, Electromagnetic compatibility (EMC) - Part 6-3: Generic Standards - Emission standard for residential, commercial and light-industrial environments

DIN EN ISO 13849-1

DIN EN ISO 13849-1:2016, Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design

DIN EN 16005

DIN EN 16005:2013-01, Power operated pedestrian doorsets - Safety in use - Requirements and test method

EN 15804+A2

EN 15804:2014+A2:2019 Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

EWC

European Waste Catalogue established by Commission Decision 2000/532/EC

ISO 9001

ISO 9001:2015, Quality management systems - Requirements with guidance for use

2006/42/EC

European directive on machinery, and amending Directive 95/16/EC (recast)

2012/19/EU

European directive on waste electrical and electronic equipment (WEEE)

2014/30/EU

European directive on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)

2015/863/EU

European directive amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances

Other sources:

GaBi 10 2021a

GaBi 10 2021: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, Sphera GmbH, Echterdingen, 1992-2020.

GaBi 10 2021b

GaBi 10 2021b: Documentation of GaBi 8: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, Sphera GmbH, Echterdingen, 1992-2020. <http://documentation.GaBi-software.com/>

IBU PCR Part A

Institut Bauen und Umwelt e.V., Königswinter (pub.): Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Background Report. Version 1.8 April 2019 www.ibu-epd.de

IBU PCR Part B

IBU PCR Part B: PCR Guidance-Texts for Building-Related Products and Services. From the range of Environmental Product Declarations of Institute Construction and Environment e.V. (IBU). Part B: Requirements on the EPD for Automatic doors, automatic gates and revolving door systems Version 1.6 (11. 2017) www.ibu-epd.com

IBU 2021

General Instructions for the EPD programme of Institut Bauen und Umwelt e.V. Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021. www.ibu-epd.com

TRACI Methodology

Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts (TRACI), EPA/600/R-12/554 2012

9. Annex

Results shown below were calculated using TRACI Methodology.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END-OF-LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement ¹⁾	Refurbishment ¹⁾	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	X	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One piece of RD600

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C1	C2	C3	C4	D
GWP	Global warming potential	[kg CO ₂ -eq.]	1.20E+04	1.32E+02	8.27E+00	0.00E+00	0.00E+00	5 144.32	1.27E+01	1.48E+02	8.91E+01
GWP	Global warming potential, incl. biogenic	[kg CO ₂ -eq.]	1.08E+04	1.32E+02	9.49E+02	5.12E+03	0.00E+00	1.26E+01	4.91E+02	8.83E+01	-6.43E+03
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-eq.]	0.00E+00	1.32E+02	9.49E+02	0.00E+00	0.00E+00	5.12E+03	1.26E+01	4.91E+02	8.83E+01
AP	Acidification potential of land and water	[kg SO ₂ -eq.]	4.19E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EP	Eutrophication potential	[kg N-eq.]	1.82E+00	1.20E-01	1.69E+00	0.00E+00	0.00E+00	1.12E+01	1.00E-02	6.60E-01	8.00E-02
Smog	Ground-level smog formation potential	[kg O ₃ -eq.]	5.15E+02	2.00E-02	5.00E-02	0.00E+00	0.00E+00	1.05E+00	0.00E+00	2.00E-02	0.00E+00
Resources	Resources – resources fossil	[MJ surplus energy]	1.11E+04	1.94E+00	1.78E+01	0.00E+00	0.00E+00	1.49E+02	1.90E-01	6.86E+00	1.28E+00

RESULTS OF THE LCA - RESOURCE USE: One piece of RD600

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C1	C2	C3	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	3.96E+04	0.00E+00	1.01E+04	0.00E+00	0.00E+00	0.00E+00	3.23E+03	0.00E+00	0.00E+00
PERM	Renewable primary energy resources as material utilization	[MJ]	1.33E+04	0.00E+00	-1.01E+04	0.00E+00	0.00E+00	0.00E+00	-3.21E+03	0.00E+00	0.00E+00
PERT	Total use of renewable primary energy resources	[MJ]	5.29E+04	1.00E+02	4.20E+00	4.07E+04	0.00E+00	9.65E+00	1.84E+01	2.54E+01	-3.52E+04
PENRE	Non-renewable primary energy as energy carrier	[MJ]	1.57E+05	0.00E+00	7.28E+01	0.00E+00	0.00E+00	0.00E+00	3.76E+03	0.00E+00	0.00E+00
PENRM	Non-renewable primary energy as material utilization	[MJ]	3.73E+03	0.00E+00	-4.83E+01	0.00E+00	0.00E+00	0.00E+00	-3.69E+03	0.00E+00	0.00E+00
PENRT	Total use of non-renewable primary energy resources	[MJ]	1.61E+05	1.79E+03	2.45E+01	9.18E+04	0.00E+00	1.72E+02	7.65E+01	1.55E+02	-8.40E+04
SM	Use of secondary material	[kg]	2.43E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of non-renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

FW	Use of net fresh water	[m³]	8.08E+01	1.16E-01	7.76E-01	4.70E+01	0.00E+00	1.12E-02	6.37E-01	2.36E-01	-8.71E+01
RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One piece of RD600											
Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C1	C2	C3	C4	D
HWD	Hazardous waste disposed	[kg]	3.82E-04	8.32E-05	6.44E-08	3.80E-05	0.00E+00	7.99E-06	2.17E-07	1.92E-06	-7.18E-05
NHWD	Non-hazardous waste disposed	[kg]	1.60E+03	2.74E-01	5.79E+00	6.51E+01	0.00E+00	2.63E-02	1.60E+01	5.93E+02	-1.57E+03
RWD	Radioactive waste disposed	[kg]	1.07E+01	2.21E-03	7.55E-04	1.39E+01	0.00E+00	2.13E-04	4.44E-03	2.78E-03	-5.24E+00
CRU	Components for re-use	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	[kg]	0.00E+00	0.00E+00	5.12E+02	0.00E+00	0.00E+00	0.00E+00	1.88E+03	0.00E+00	0.00E+00
MER	Materials for energy recovery	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	Exported electrical energy	[MJ]	0.00E+00	0.00E+00	2.53E+03	0.00E+00	0.00E+00	0.00E+00	1.25E+03	0.00E+00	7.86E-02
EET	Exported thermal energy	[MJ]	0.00E+00	0.00E+00	3.58E+03	0.00E+00	0.00E+00	0.00E+00	1.88E+03	0.00E+00	1.48E-01

**Publisher**

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**Author of the Life Cycle Assessment**

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ASSA ABLOY

Owner of the Declaration

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Fax
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Declaration of conformity

ASSA ABLOY
Entrance Systems

Experience a safer
and more open world

We **ASSA ABLOY Entrance Systems AB**
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

declare under our sole responsibility that the type of equipment:
UniTurn

complies with the following directives:

2014/30/EU ElectroMagnetic Compatibility Directive (EMCD)

2006/42/EC Machinery Directive (MD)

2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment with the applicable amendments (RoHS)

Harmonized European standards which have been applied:

EN ISO 13849-1:2015

EN 60335-2-103:2015

EN 61000-6-2:2005

EN 61000-6-3:2007+A1:2011

EN 16005:2012

EN 60335-1: 2012+A13:2017

Other standards or technical specifications, which have been applied:

IEC 60335-1 ed. 5:2010

IEC 60335-2-103 ed. 2:2006+A1:2010

Certificate issued by a notified or competent body (for full address, please contact ASSA ABLOY Entrance Systems AB) concerning the equipment:

BY/112 02.01. 020 08532

The manufacturing process ensures the compliance of the equipment with the technical file. The manufacturing process is regularly assessed by 3rd party.

The CE mark was first applied 2006-04-01

Compilation of technical file:

Anders Forslind

ASSA ABLOY Entrance Systems AB

Lodjursgatan 10

SE-261 44 Landskrona

Sweden

Place
Ferahltorf

Date
2022-02-02

Signature
Mats Nordén



Position
Head of Product Development Product Area Door
Automation

Declaration of conformity

ASSA ABLOY
Entrance Systems

Experience a safer
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We **ASSA ABLOY Entrance Systems AB**
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

declare under our sole responsibility that the type of equipment:
SW100

complies with the following directives:

2014/30/EU ElectroMagnetic Compatibility Directive (EMCD)

2006/42/EC Machinery Directive (MD)

2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment with the applicable amendments (RoHS)

Harmonized European standards which have been applied:

EN ISO 13849-1:2015

EN 60335-1:2012+A11:2014

EN 60335-2-103:2015

EN 61000-6-2:2005

EN 61000-6-3:2007+A1:2011

EN 16005:2012/AC:2015

Other standards or technical specifications, which have been applied:

FCC 47 CFR Part 15 B

UL 325

IEC 60335-1 ed 5:2010

IEC 60335-2-103: ed. 2.1:2011

EN 1634-1:2008

Certificate issued by a notified or competent body (for full address, please contact ASSA ABLOY Entrance Systems AB) concerning the equipment:

SC0839-09

UL File E47833

UL File R9469

The manufacturing process ensures the compliance of the equipment with the technical file. The manufacturing process is regularly assessed by 3rd party.

The CE mark was first applied 2007-10-01.

Compilation of technical file:

Anders Forslind

ASSA ABLOY Entrance Systems AB

Lodjursgatan 10

SE-261 44 Landskrona

Sweden

Place
Landskrona

Date
2021-04-16

Signature
Klas Hagelin

Position
Global Quality Manager



Declaration of conformity

ASSA ABLOY
Entrance Systems

Experience a safer
and more open world

We **ASSA ABLOY Entrance Systems AB**
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

declare under our sole responsibility that the type of equipment:
SL500, SL500 T, SL500 SL, SL510, SL520, SL500 ADS, SL500 T ADS, SL500 SL ADS, SL510 ADS, SL520 ADS. With or without emergency unit

complies with the following directives:

2014/30/EU ElectroMagnetic Compatibility Directive (EMCD)

2006/42/EC Machinery Directive (MD)

2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment with the applicable amendments (RoHS)

2014/53/EU Radio Equipment Directive (RED)

Harmonized European standards which have been applied:

EN 61000-6-2:2005

EN ISO 13849-1:2015

EN 60335-2-103:2015

EN 61000-6-3:2007+A1:2011

EN 16005:2012/AC:2015

EN 300 328 V 2.1.1

EN 60335-1:2012/AC:2014+A11:2014+A13:2017

+A1:2019+A14:2019+A2:2019

Other standards or technical specifications, which have been applied:

FCC 47 CFR Part 15 B + Part 15C

IEC 60335-2-103 ed.2 1:2011

DIN 18650-1/-2:2010

EN 301 489-1 V 2.2.0

UL 325

IEC 60335-1 ed. 5:2010

AutSchR:1997

EN 301 489-1 V 2.2.0

Certificate issued by a notified or competent body (for full address, please contact ASSA ABLOY Entrance Systems AB) concerning the equipment:

B.01999/19

B 050829 0049

UL File E47833

SC1319-13

The manufacturing process ensures the compliance of the equipment with the technical file. The manufacturing process is regularly assessed by 3rd party.

The CE mark was first applied 2013-10-10

Compilation of technical file:

Anders Forslind

ASSA ABLOY Entrance Systems AB

Lodjursgatan 10

SE-261 44 Landskrona

Sweden

Place
Ferahltorf

Date
2021-11-19

Signature
Mats Nordén



Position
Head of Product Development Product Area Door
Automation

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	ASSA ABLOY Entrance Systems AB
Program holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-ASA-20220082-IBC1-EN
Issue date	18.08.2022
Valid to	17.08.2027

ASSA ABLOY SL500 Sliding Door Operator ASSA ABLOY Entrance Systems

www.bau-umwelt.com / <https://epd-online.com>



1. General Information

ASSA ABLOY Entrance Systems

Program holder

IBU - Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-ASA-20220082-IBC1-EN

This Declaration is based on the Product Category Rules:

IBU: PCR Automatic doors, automatic gates, and revolving door systems (door systems) Version 1.6 (11. 2017). (PCR tested and approved by the independent expert committee (SVA))

Issue date

18.08.2022

Valid to

17.08.2027



Dipl.-Ing. Hans Peters
(President of IBU e.V.)



Dr. Alexander Röder
(Managing Director of IBU e.V.)

ASSA ABLOY SL500 Sliding Door Operator

Owner of the Declaration

ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

Declared product / Declared unit

The declaration represents 1 automatic ASSA ABLOY SL500 sliding door operator

Scope:

This declaration and its LCA study are relevant to the ASSA ABLOY SL500 sliding door operator. The final assembly and production stage occurs in Ostrov u Stribra, Czech Republic at D5 Logistic Park 34901 Ostrov u Stribra, Czech Republic. Components are sourced from international tier one suppliers. The ASSA ABLOY SL500 sliding door operator length vary according to project requirements; an operator maneuvering 2 door leaves (bi-parting) with a beam length of 4.1 m is used in this declaration. The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as EN 15804.

Verification

The CEN Standard EN 15804 serves as the core PCR

Independent verification of the declaration and data according to ISO 14025

☐ internally ☒ externally



Dr. Wolfram Trinius
(Independent tester appointed by SVA)

2. Product

2.1 Product description

Product name: ASSA ABLOY SL500 sliding door operator

Product characteristics: Automatic sliding door operator

The modular ASSA ABLOY SL500 sliding door operator is an automatic sliding door operator developed to suit all building entrances. It is easy to install for both new construction and retrofit application, and it can be adapted to a wide range of entrance requirements.

The ASSA ABLOY SL500 sliding door operator can be used for both internal and external entrance solutions. It can be mounted on the building surface structure or on a supporting beam.

The ASSA ABLOY SL500 sliding door operator works electromechanically. The operator is designed in a

modular way and consists of different variants of support beams, covers, drive units, control unit and power supplies. As an option the operator can be equipped with an emergency unit, electromechanical locking devices, additional functionality board and sensors. The drive unit transmits movement to the door leaves by means of a tooth belt. The door leaf is fitted to a carriage wheel that rolls on a sliding track.

The operator is self-adjusting to changing weather conditions, making it suitable for different environments. It combines optimal safety with maximum product life cycle if maintenance requirements are met. The automatic sliding door operator is generally made of aluminium and steel.

The ASSA ABLOY SL500 sliding door operator has been designed to meet all operational and safety requirements and is certified by a third party to fulfill the *European Directives* and the standards issued by the *European Standardization Committee (CEN)*.

For the placing on the market in the European Union/European Free Trade Association (EU/EFTA) and Turkey the following European directives apply to the ASSA ABLOY SL500 sliding door operator:

- 2014/30/EU Electromagnetic Compatibility Directive (EMCD)
- 2006/42/EC Machinery Directive (MD)
- 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment with the applicable amendments (RoHS).

These directives provide for CE marking of the product and issue a Declaration of Conformity.

Harmonized European standards, which have been applied:

- EN 60335-1 Household and similar electrical appliances -Safety -Part 1: General requirements
- EN 60335-2-103 Household and similar electrical appliances -Safety -Part 2: Particular requirements for drives for gates, doors and windows
- EN 61000-6-2 Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
- EN 61000-6-3 Electromagnetic compatibility (EMC) — Part 6-3: Generic standards — Emission standard for residential, commercial and light-industrial environments
- EN ISO 13849-1 Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design
- EN 16005 Power operated pedestrian door sets - Safety in use -Requirements and test methods

Other standards or technical specifications, which have been applied:

- DIN 18650-1 Powered pedestrian doors - Part 1: Product requirements and test methods
- DIN 18650-2 Powered pedestrian doors - Part 2: Safety at powered pedestrian doors
- IEC 60335-1 Household and similar electrical appliances -Safety -Part 1: General requirements
- IEC 60335-2-103 Household and similar electrical appliances Safety Part 2-103: Particular requirements for drives for gates, doors and windows.

Disposal of the product is subject to the Waste from Electrical and Electronic Equipment (WEEE) Directive within Europe, Directive 2012/19/EU together with the RoHS Directive 2011/65/EU and its amending Directive 2015/863.

For the application and use the respective national provisions apply.

2.2 Application

The ASSA ABLOY SL500 sliding door operator is an automatic door operator suitable for low to very intense pedestrian traffic flow. From hospital entrances to retail and transportation applications, the smooth, quiet

operation and flexible platform makes the ASSA ABLOY SL500 sliding door operator ideal for any segment.

The operator offers a number of sustainable features to help minimize power usage, reduce environmental footprints and air infiltration to meet the increased demands of energy efficiency.

The ASSA ABLOY SL500 sliding door operator offer a number of highly intelligent features as standard, specially designed for optimal pedestrian safety at all times around-the-clock.

The operator is convenient as it is built upon a modular platform to ensure optimal user flexibility. Serviceability is taken into account in order to ensure minimal hassle, optimal product life cycle and smooth maintenance. The ASSA ABLOY SL500 sliding door operator can be tailored to any requirements. It can be easy upgraded and modernized to meet new requirements without time-consuming and complex entrance re-modelling.

The ASSA ABLOY SL500 sliding door operator incorporates entrance security into its design and operation from start. Not only does it come with a number of clever features as standard - it is also ready for add-on locking configurations.

2.3 Technical Data

The product has the following technical properties:

Features

Name	Value
Clear opening: Bi-parting	SL500-2: 1000 – 3000mm
Clear opening: Single Slide	SL500-R/L: 800 – 3000mm
Suitable for doors up to 65 mm thickness	
Profile finish	- anodized aluminium, colour on request - painted in colour according to RAL card

Technical Data

Name	Value
Mains power supply	100 V AC -10% to 240 V AC +10%, 50/60 Hz, fuse 10 AT (building installation)
Power consumption	Max 250 W
Auxiliary voltage	24 V DC, 1 A
Opening/closing speed	SL500: Variable up to approx. 1.4 m/s (SL500-2)
Hold open time	0-60 s
Recommended max. door weight (Bi-parting without break-out)	SL500-2: 200 kg/leaf
Recommended max. door weight (Single Slide without break-out)	SL500-R/L 240 kg
Ambient temperature	-20 °C to +50 °C

2.4 Delivery status

The ASSA ABLOY SL500 sliding door operator is delivered ready for installation.

2.5 Base materials / Ancillary materials

The average composition of ASSA ABLOY SL500 sliding door operator is as follows:

Component	Percentage in mass (%)
Aluminium	47.876
Brass	0.007
Copper	0.040
Plastics	8.825
Stainless steel	1.299
Steel	24.329
Zinc	0.356
Electronic	1.903
Electro_mechanics	15.062
Paper	0.192
others	0.111
Total	100.0

This product/article/at least one partial article contains substances listed in the candidate list (date: 05.08.2022) exceeding 0.1 percentage by mass: no.

This product/article/at least one partial article contains other CMR substances in categories 1A or 1B which are not on the candidate list, exceeding 0.1 percentage by mass: no.

Biocide products were added to this construction product or it has been treated with biocide products (this then concerns a treated product as defined by the (EU) Ordinance on Biocide Products No. 528/2012): no.

2.6 Manufacture

The primary manufacturing processes are made by tier one suppliers and the final manufacturing processes for operator units occur in the factory in Ostrov, Czech Republic. The profiles are machined and surface treated; either anodized (externally) or powder coated (internally). Other parts such as electronics etc. arrive from tier one suppliers or the factory in China and a final assembly is done in Ostrov. The operators are packed in cardboard boxes and forwarded to on-site installation. The certified quality management system, *EN ISO 9001:2015*, ensures high standards.

Offcuts and scraps during the manufacturing process are directed to a recycling unit. Wastewater are cleared on-site and waste is sent for disposal.

Waste codes according to *European Waste Catalogue and Hazardous Waste List (EWC)* - Valid from 1 January 2002.

EWC 12 01 01 Ferrous metal filings and turnings
EWC 12 01 03 Non-ferrous metal filings and turnings
EWC 17 02 03 plastic
EWC 17 04 01 copper, bronze, brass
EWC 17 04 02 aluminium
EWC 17 04 05 iron and steel
EWC 17 04 11 Cables with the exception of those outlined in 17 04 10

2.7 Environment and health during manufacturing

ASSA ABLOY Entrance Systems is committed to producing and distributing door opening solutions with minimal environmental impact, where health & safety (H&S) is the primary focus for all employees and associates.

- Environmental operations, Greenhouse Gas emissions (GHG), energy, water, waste, volatile organic compounds (VOC), surface treatment and

H&S are being routinely monitored. Inspections, audits, and reviews are conducted periodically to ensure that applicable standards are met and Environment Management program effectiveness is evaluated.

- Code of Conduct covers human rights, labor practices and decent work. The management of ASSA ABLOY Entrance Systems is aware of their environmental roles and responsibilities, providing appropriate training, supporting accountability and recognizing outstanding performance.
- Preparation and manufacturing conditions (including the process of powder coating) in the factory of Ostrov do not require special health and safety measures. Standard health and safety measures (work gloves, hearing protection, safety shoes, dust mask when sanding and milling, dust extraction, etc.) are observed where appropriate.
- Water and soil contamination does not occur and all production related waste is processed internally in the appropriate manner.

2.8 Product processing/Installation

The ASSA ABLOY SL500 sliding door operator is supplied ready for installation. The installation is performed by trained and qualified technicians.

2.9 Packaging

Packaging exists for the purpose of protection during transportation. ASSA ABLOY Entrance Systems' sliding door systems are initially packaged in polystyrene film and corrugated cardboard. All packaging is recyclable.

Material	Value (%)
Cardboard/paper	95.24
Plastics	4.76
Total	100.0

All materials incurred during installation are directed to a recycling unit.

Waste codes according to *European Waste Catalogue and Hazardous Waste List (EWC)* - Valid from 1 January 2002.

EWC 15 01 01 paper and cardboard packaging
EWC 15 01 02 plastic packaging

2.10 Condition of use

Regular inspections shall be made according to national regulations and product documentation by an ASSA ABLOY Entrance Systems' trained and qualified technician. The number of service occasions should be in accordance with national requirements and product documentation. Service is recommended according to the "Service Log Book".

Regular inspections and cleaning should be performed by the owner of the product, according to the "User's Manual".

The best way to remove dust and dirt from the ASSA ABLOY SL500 sliding door operator is to use water and a soft cloth or a sponge. A gentle detergent may be used. To maintain the quality of the enamel layer, the surfaces should be cleaned three times/year (once/four month's period). The cleaning should be documented.

- Do not expose profiles to alkalis. Aluminium is sensitive to alkalis.
- Do not clean with high-pressure water. Operator, programme selector and sensor may be damaged and water may enter the profiles.

- Do not use polishing detergent.
- Do not scrub with materials like Scotch-brite, as this will cause mechanical damage.

2.11 Environment and health during use

There is no harmful emissive potential. Minimal risk for personal injury if correctly configured and maintenance recommendations apply.

2.12 Reference service life

The product has a reference service life of more than 1.000.000 cycles and 10 years of standard daily use (with the recommended maintenance and service program). For this EPD a lifetime of 10 years was considered.

2.13 Extraordinary effects

Fire

The ASSA ABLOY SL500 sliding door operator is tested for usage in fire and smoke protection doors according to *EN1634-1:2008*.

Water

Contains no substances that have any impact on water in case of a flood. Product operation can be influenced.

Mechanical destruction

No danger to the environment can be anticipated during mechanical destruction.

2.14 Re-use phase

The product is possible to be re-used during the reference service life and be moved from one door to another.

All recyclable materials are directed to a recycling unit where they are recycled (brass, electronics, electro-mechanics, stainless steel, steel, and aluminium).

On the other hand, the plastic components are sent to the waste incineration plant for its energy recovery.

Waste codes according to *European Waste Catalogue and Hazardous Waste List (EWC)* - Valid from 1 January 2002:

EWC 16 02 14 Used devices with the exception of those outlined in 16 02 09 to 16 02 13

EWC 17 02 01 wood

EWC 17 02 03 plastic

EWC 17 04 01 copper, bronze, brass

EWC 17 04 02 aluminium

EWC 17 04 05 iron and steel

EWC 17 04 11 Cables with the exception of those outlined in 17 04 10

2.15 Disposal

The product can be mechanically dissembled to separate the different materials. The majority of components are steel and aluminium which will be recycled. The plastic components are used for energy recovery in an incineration plant.

The disposal of the product is subject to the Waste Electrical and Electronic Equipment (WEEE) Directive within Europe, *Directive 2012/19/EU*

2.16 Further information

For further information and additional contact:

ASSA ABLOY Entrance Systems AB

Lodjursgatan 10

SE-261 44 Landskrona

Sweden

www.assaabloyentrance.com

3. LCA: Calculation rules

3.1 Declared Unit

The declaration refers to the functional unit of 1 piece of the ASSA ABLOY SL500 sliding door operator as specified in IBU PCR Part B.

Declared unit

Name	Value	Unit
Mass (without packaging)	29.751	kg
Mass packaging	6.151	kg
Declared unit for sliding door operator (dimensions acc. to this PCR)	1	piece

3.2 System boundary

Type of the EPD: cradle to gate with options.
The following life cycle phases were considered:

Production stage:

- A1 – Raw material extraction and processing
- A2 – Transport to the manufacturer and
- A3 – Manufacturing

Construction stage:

- A4 - Transport from the gate to the site
- A5 – Packaging waste processing

Use stage related to the operation of the building includes:

- B6 – Operational energy use (Energy consumption for operation)

End-of-life stage:

- C1 – De-construction/demolition
- C2 – Transport to waste processing
- C3 – Waste processing for recycling and
- C4 – Disposal (landfill, waste for incineration)

This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

- Benefits and loads beyond the system boundaries: D – Declaration of all benefits and loads

3.3 Estimates and assumptions

Transportation:

Data on mode of transport and distances, as reported by suppliers were used for those materials and parts contributing more than 2 % of the total product mass. In case of unknown transport distances for parts and materials, contributing less than 2 % to the total product mass, transport by road over an average distance of 500 km was assumed.

Use phase:

For the use phase, it is assumed that the sliding door system is used in the European Union, thus an EU electricity grid mix is considered within this stage.

According to the most representative scenario, the operating hours of the product are accounted for 2130 hours in on mode, 2130 hours in standby mode and finally 4260 hours in idle mode per year (355 days per year in use); the power consumption throughout the whole life cycle is 3322.8 kWh

EoL:

In the End-of-Life stage, for all the materials from the product which can be recycled (steel, aluminium, electronic parts, electro-mechanics, copper, stainless steel, zinc and brass) a recycling scenario with a 100% collection rate was assumed. The plastic components are sent for energy recovery within a waste incineration process.

EoL is assumed to happen within EU-28. Furthermore, a transport distance by truck of 100 km has been assumed in the model.

3.4 Cut-off criteria

In the assessment, all available data from the production process are considered, i.e. all raw materials used, auxiliary materials (e.g. lubricants), thermal energy consumption and electric power consumption - including material and energy flows contributing less than 1 % of mass or energy (if available). In case a specific flow contributing less than 1 % in mass or energy is not available, worst-case assumption proxies are selected to represent the respective environmental impacts.

Impacts relating to the production of machines and facilities required during production are out of the scope of this assessment.

3.5 Background data

For life cycle modeling of the considered products, the *GaBi 10 Software System for Life Cycle Engineering*, developed by Sphera, is used *GaBi 10 2021a*

The *GaBi*-database contains consistent and documented datasets which are documented in the online *GaBi*-documentation *GaBi 10 2021b*

To ensure comparability of results in the LCA, the basic data of *GaBi* database were used for energy, transportation and auxiliary materials.

3.6 Data quality

The requirements for data quality and background data correspond to the specifications of the *IBU PCR Part A*.

Sphera performed a variety of tests and checks during the entire project to ensure high quality of the completed project. This obviously includes an extensive review of project-specific LCA models as well as the background data used.

The technological background of the collected data reflects the physical reality of the declared products. The datasets are complete and conform to the system boundaries and the criteria for the exclusion of inputs and outputs.

All relevant background datasets are taken from the *GaBi 10* software database.

3.7 Period under review

The period under review is 2020 (12-month average).

3.8 Allocation

Regarding incineration, the software model for the waste incineration plant (WIP) is adapted according to the material composition and heating value of the combusted material. In this EPD the following specific life cycle inventories for the WIP are considered:

- Waste incineration of plastic
- Waste incineration of paper
- Waste incineration of electronic scrap

Regarding the recycling material of metals, the metal parts in the EoL are declared as end-of-waste status. Thus, these materials are considered in module D. Specific information on allocation within the background data is given in the *GaBi* dataset documentation.

3.9 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account. *GaBi 10 2021b* serves as background database for the calculation.

4. LCA: Scenarios and additional technical information

The following technical information is a basis for the declared modules or can be used for developing specific scenarios in the context of a building assessment if modules are not declared (MND).

Information on describing the biogenic Carbon Content at factory gate

Name	Value	Unit
Biogenic Carbon Content in product	0.02	kg C
Biogenic Carbon Content in accompanying packaging	2.52	kg C

Transport to the building site (A4)

Name	Value	Unit
Litres of fuel diesel with maximum load (27t payload)	27.505	kg/100km
Transport distance truck (primary target market is EU 28)	1166	km
Capacity utilization (incl. empty runs) of truck	61	%

Installation into the building (A5)

Name	Value	Unit
Output substances following waste treatment on site (paper/cardboard packaging)	5.86	kg
Output substances following waste treatment on site (plastic packaging)	0.29	kg

Reference service life

Name	Value	Unit
Reference service life	10	a

Operational energy use (B6)

Name	Value	Unit
Electricity consumption per RSL (10 years, 355 days per year)	3322.8	kWh
Hours per day in on mode	6	h
Hours per day in stand-by mode	6	h
Hours per day in idle mode	12	h
Power consumption – on mode	71	W
Power consumption – stand-by mode	25	W
Power consumption – idle mode	30	W

*Total energy consumed during the whole product life was calculated using following formula:

$$(W_{active_mode} \cdot h_{active_mode} + W_{idle_mode} \cdot h_{idle_mode} + W_{stand_by_mode} \cdot h_{stand_by_mode}) \cdot Life_span \cdot days_year \cdot 0.001$$

Where:

- W_{active_mode} - Energy consumption in active mode in W
- h_{active_mode} - Operation time in active mode in hours
- W_{idle_mode} - Energy consumption in idle mode in W
- h_{idle_mode} - Operation time in idle mode in hours
- $W_{stand_by_mode}$ - Energy consumption in stand-by mode in W
- $h_{stand_by_mode}$ - Operation time in stand-by mode in hours
- $Life_span$ - Reference service life of product
- $days_year$ - Operation days per year

- 0.001 - Conversion factor from Wh to kWh.

End of life (C1-C4)

Name	Value	Unit
Collected separately aluminium, steel, brass, plastics, stainless steel, copper, electronic, electro mechanics etc.	29.75	kg
Incineration of plastic parts	2.68	kg
Recycling aluminium, steel, electronic, electro-mechanics, stainless steel, copper, iron and brass	27.04	kg
Landfill of others	0.03	kg

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Name	Value	Unit
Collected separately waste type (including packaging)	35.869	kg
Recycling aluminium	39.708	%
Recycling brass	0.006	%
Recycling copper	0.033	%
Recycling stainless steel	1.078	%
Recycling steel	20.179	%
Recycling zinc	0.296	%
Recycling electronic	1.579	%
Recycling electro mechanics	12.493	%
Incineration of plastic parts	7.320	%
Incineration of paper parts	0.159	%
Incineration of packaging (paper, wood and plastic) (from A5)	17.149	%

5. LCA: Results

Results shown are calculated according to EN 15804+A2.

Note:

EP-freshwater: This indicator has been calculated as “kg P eq” as required in the characterization model (EUTREND model, Struijs et al., 2009b, as implemented in ReCiPe; <http://eplca.jrc.ec.europa.eu/LCDN/developerEF.xhtml>).

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END-OF-LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement ¹⁾	Refurbishment ¹⁾	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	X	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One piece of SL500

Core Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ -Eq.]	2.83E+02	2.52E+00	8.31E+00	1.34E+03	0.00E+00	1.79E-01	7.46E+00	1.33E+00	-1.46E+02
GWP-fossil	[kg CO ₂ -Eq.]	2.93E+02	2.51E+00	2.08E-01	1.34E+03	0.00E+00	1.78E-01	7.38E+00	1.33E+00	-1.46E+02
GWP-biogenic	[kg CO ₂ -Eq.]	-1.01E+01	-4.29E-03	8.10E+00	4.46E+00	0.00E+00	-3.05E-04	8.06E-02	-4.29E-03	-2.53E-01
GWP-luluc	[kg CO ₂ -Eq.]	1.84E-01	2.03E-02	1.37E-04	1.94E+00	0.00E+00	1.45E-03	1.15E-03	2.47E-04	-4.89E-02
ODP	[kg CFC11-Eq.]	4.23E-09	3.02E-16	1.50E-15	2.94E-11	0.00E+00	2.15E-17	1.59E-14	1.09E-15	2.71E-11
AP	[mol H ⁺ -Eq.]	1.41E+00	2.58E-03	2.33E-03	2.95E+00	0.00E+00	1.83E-04	2.31E-03	8.25E-04	-8.86E-01
EP-freshwater	[kg PO ₄ -Eq.]	7.93E-04	7.64E-06	2.93E-07	3.57E-03	0.00E+00	5.43E-07	2.02E-06	2.63E-07	-5.61E-05
EP-marine	[kg N-Eq.]	2.24E-01	7.51E-04	8.40E-04	6.56E-01	0.00E+00	5.34E-05	5.60E-04	2.69E-04	-1.08E-01
EP-terrestrial	[mol N-Eq.]	2.42E+00	9.04E-03	1.05E-02	6.89E+00	0.00E+00	6.43E-04	7.36E-03	3.39E-03	-1.17E+00
POCP	[kg NMVOC-Eq.]	6.81E-01	2.09E-03	2.23E-03	1.80E+00	0.00E+00	1.48E-04	1.56E-03	7.44E-04	-3.38E-01
ADPE	[kg Sb-Eq.]	1.83E-02	1.80E-07	2.36E-08	3.87E-04	0.00E+00	1.28E-08	2.12E-07	1.58E-08	-1.44E-02
ADPF	[MJ]	3.88E+03	3.35E+01	2.62E+00	2.35E+04	0.00E+00	2.38E+00	1.38E+01	1.50E+00	-1.76E+03
WDP	[m ³ world-Eq deprived]	2.94E+01	2.25E-02	1.03E+00	2.92E+02	0.00E+00	1.60E-03	8.51E-01	1.83E-01	-2.11E+01
Caption	GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential									

RESULTS OF THE LCA - RESOURCE USE: One piece of SL500

Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
PERE	[MJ]	9.30E+02	0.00E+00	9.96E+01	0.00E+00	0.00E+00	0.00E+00	6.42E+00	0.00E+00	0.00E+00
PERM	[MJ]	1.00E+02	0.00E+00	-9.91E+01	0.00E+00	0.00E+00	0.00E+00	-9.64E-01	0.00E+00	0.00E+00
PERT	[MJ]	1.03E+03	1.88E+00	4.76E-01	1.04E+04	0.00E+00	1.34E-01	5.46E+00	3.02E-01	-6.79E+02
PENRE	[MJ]	3.68E+03	0.00E+00	1.43E+01	0.00E+00	0.00E+00	0.00E+00	2.16E+02	0.00E+00	0.00E+00
PENRM	[MJ]	2.14E+02	0.00E+00	-1.17E+01	0.00E+00	0.00E+00	0.00E+00	-2.02E+02	0.00E+00	0.00E+00
PENRT	[MJ]	3.89E+03	3.35E+01	2.62E+00	2.35E+04	0.00E+00	2.38E+00	1.38E+01	1.50E+00	-1.76E+03
SM	[kg]	4.78E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m ³]	1.88E+00	2.18E-03	2.42E-02	1.21E+01	0.00E+00	1.55E-04	2.26E-02	4.40E-03	-1.79E+00
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water									

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One piece of SL500

Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
HWD	[kg]	5.47E-03	1.56E-06	3.86E-09	9.73E-06	0.00E+00	1.11E-07	1.35E-08	1.44E-08	-1.05E-06
NHWD	[kg]	3.72E+01	5.12E-03	2.60E-01	1.67E+01	0.00E+00	3.64E-04	6.61E-01	3.82E+00	-3.25E+01
RWD	[kg]	2.14E-01	4.14E-05	1.38E-04	3.57E+00	0.00E+00	2.95E-06	1.79E-03	3.82E-05	-9.40E-02
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	0.00E+00	0.00E+00	5.86E+00	0.00E+00	0.00E+00	0.00E+00	2.21E+01	0.00E+00	2.14E-01
MER	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	1.26E+01	0.00E+00	0.00E+00	0.00E+00	1.50E+01	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	2.28E+01	0.00E+00	0.00E+00	0.00E+00	2.71E+01	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EEE = Exported thermal energy									

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: One piece of SL500

Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
PM	[Disease Incidence]	1.48E-05	1.53E-08	1.29E-08	2.48E-05	0.00E+00	1.09E-09	2.43E-08	9.96E-09	-8.78E-06
IR	[kBq U235-Eq.]	3.66E+01	5.99E-03	2.13E-02	5.86E+02	0.00E+00	4.26E-04	2.91E-01	3.55E-03	-1.91E+01
ETP-fw	[CTUe]	1.67E+03	2.36E+01	1.24E+00	1.01E+04	0.00E+00	1.68E+00	6.66E+00	7.34E-01	-5.91E+02
HTP-c	[CTUh]	8.42E-07	4.95E-10	6.58E-11	2.78E-07	0.00E+00	3.52E-11	2.34E-10	9.81E-11	-7.91E-08
HTP-nc	[CTUh]	4.43E-06	2.55E-08	2.85E-09	1.02E-05	0.00E+00	1.82E-09	1.58E-08	9.62E-09	-1.40E-06
SQP	[-]	1.77E+03	1.17E+01	6.95E-01	7.49E+03	0.00E+00	8.34E-01	4.20E+00	3.98E-01	-7.97E+01
Caption	PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index									

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”.

The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

6. LCA: Interpretation

This chapter contains an interpretation of the Life Cycle Impact Assessment categories. Stated percentages in the whole interpretation are related to the overall life cycle, excluding credits (module D).

The production stage (modules A1-A3) contributes between 14 % and 33 % to the overall results for all the environmental impact assessment categories hereby considered, except for the abiotic depletion potential (ADPE), for which the contribution from the production stage accounts for approx. 97.9 % - this impact category describes the reduction of the global amount of non-renewable raw materials, therefore, as expected, it is mainly related to the extraction of raw materials (A1). Also, ODP shows a higher contribution of 99.3 %

Within the production stage, the main contribution for all the impact categories is the production of steel and aluminium mainly due to the energy consumption in these processes. These two materials account for

approx. 59.8 % to the overall mass of the product, therefore, the impacts are in line with the mass composition of the product. The environmental impacts for the transport (A2) have a negligible impact within this stage.

To reflect the use stage (module B6), the energy consumption was included, and it has a major contribution to all the impact assessment categories considered - between 67 % and 86 %, with the exception of ADPE (2.07 %) and ODP (0.69 %). This is a result of 6 hours of operation in on mode, 6 hours in stand-by mode and 12 hours in idle mode per day and per 355 days in a year.

In the end-of-life stage, there are loads and benefits (module D, negative values) considered. The benefits are considered beyond the system boundaries and are declared for the recycling potential of the metals and for the credits from the incineration process (energy substitution).

7. Requisite evidence

Not applicable in this EPD.

8. References

Standards, norms, directives:

CPR

Regulation (EU) No. 305/2011, Construction Product Regulation (CPR)- laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC

DIN EN ISO 10140-2

DIN EN ISO 10140-2:2010, Acoustics - Laboratory measurement of sound insulation of building elements - Part 2: Measurement of airborne sound insulation (ISO 10140-2:2010); German version EN ISO 10140-2:2010

DIN EN ISO 13849-1

DIN EN ISO 13849-1:2016, Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design

DIN 4102

DIN 4102-1 B2:1998, Reaction to fire tests - Ignitability of building products subjected to direct impingement of flame.

DIN EN 12424

DIN EN 12424:2000, Industrial, commercial and garage doors and gates - Resistance to wind load - Classification; German version EN 12424:2000

DIN EN 12426

DIN EN 12424:2000, Industrial, commercial and garage doors and gates. Air permeability. Classification; German version EN 12424:2000

DIN EN 12428

DIN EN 12428:2013, Industrial, commercial and garage doors - Thermal transmittance - Requirements for the calculation; German version EN 12428:2013

DIN EN ISO 14025

DIN EN ISO 14025:2010, Environmental labels and declarations - Type III environmental declarations - Principles and procedures

DIN EN 60335-1

DIN EN 60335-1:2020, Household and similar electrical appliances - Safety - Part 1: General requirements

DIN EN 60335-2

DIN EN 60335-2:2016, Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows

EN ISO 10140-2

EN ISO 10140-2:2010, Acoustics - Laboratory measurement of sound insulation of building elements - Part 2: Measurement of airborne sound insulation (ISO 10140-2:2010); German version EN ISO 10140-2:2010

EN 12425

EN 12425:2000, Industrial, commercial and garage doors and gates - Resistance to water penetration - Classification; German version EN 12425:2000

EN 12453

EN 12453:2017, Industrial, commercial and garage doors and gates – Safety in use of power operated doors – Requirements and test methods

EN 13241-1

EN 13241:2003+A2:2016, Industrial, commercial, garage doors and gates - Product standard, performance characteristics

EN 15804+A2

EN 15804:2014+A2:2019, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

EN 61000-6-2

EN 61000-6-2:2005, Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments

EN 61000-6-3

EN 61000-6-3:2007, Electromagnetic compatibility (EMC) - Part 6-3: Generic Standards - Emission standard for residential, commercial and light-industrial environments

EWC

European Waste Catalogue established by Commission Decision 2000/532/EC

IEC 60335-1

IEC 60335-1:2020, Household and similar electrical appliances - Safety - Part 1: General requirements

IEC 60335-2

IEC 60335-2:2016, Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows

ISO 9001

ISO 9001:2015, Quality management systems - Requirements with guidance for use

ISO 14001

ISO 14001:2015, Environmental management systems — Requirements with guidance for use

2006/42/EC

European directive on machinery, and amending Directive 95/16/EC (recast)

2011/65/EC

European directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment, and its amendment directives including 2015/863/EC (RoHS directive)

2012/19/EU

European directive on waste electrical and electronic equipment (WEEE)

2014/30/EU

European directive on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)

2015/863/EU

European directive amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances

Other sources:

GaBi 10 2021a

GaBi 10 2021: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, Sphera, Echterdingen, 1992-2018.

GaBi 10 2021b

GaBi 10 2021b: Documentation of GaBi 8: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, Sphera, Echterdingen, 1992-2021.
<https://gabi.sphera.com/internationalsupportgabi>

IBU PCR Part A

Institut Bauen und Umwelt e.V., Königswinter (pub.): Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part A: Calculation Rules for the Life Cycle

Assessment and Requirements on the Project Report according to EN 15804+A2:2019, Version 1.1.1, 2021
www.ibu-epd.de

IBU PCR Part B

IBU PCR Part B: PCR Guidance-Texts for Building-Related Products and Services. From the range of Environmental Product Declarations of Institute Construction and Environment e.V. (IBU). Part B: Requirements on the EPD for Automatic doors, automatic gates and revolving door systems Version 1.6 (11. 2017)
www.ibu-epd.com

IBU 2021

General Instructions for the EPD programme of Institut Bauen und Umwelt e.V. Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021.
www.ibu-epd.com

TRACI Methodology

Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts (TRACI), EPA/600/R-12/554 2012
asdas

9. Annex

Results shown below were calculated using *TRACI Methodology*.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END-OF-LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement ¹⁾	Refurbishment ¹⁾	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	X	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One piece of SL500

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C1	C2	C3	C4	D
GWP	Global warming potential, excl. biogenic	[kg CO ₂ -eq.]	1.15E+04	1.03E+01	6.81E+00	3.47E+03	0.00E+00	1.20E+00	2.72E+02	1.28E+02	-6.52E+03
GWP	Global warming potential, incl. biogenic	[kg CO ₂ -eq.]	1.01E+04	1.03E+01	1.04E+03	3.45E+03	0.00E+00	1.19E+00	7.21E+02	1.27E+02	-6.52E+03
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-eq.]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AP	Acidification potential of land and water	[kg SO ₂ -eq.]	4.34E+01	1.00E-02	1.87E+00	7.57E+00	0.00E+00	0.00E+00	8.90E-01	1.00E-01	-2.65E+01
EP	Eutrophication potential	[kg N- eq.]	1.77E+00	0.00E+00	6.00E-02	7.10E-01	0.00E+00	0.00E+00	3.00E-02	0.00E+00	-7.20E-01
Smog	Ground-level smog formation potential	[kg O ₃ -eq.]	5.17E+02	1.50E-01	1.96E+01	1.01E+02	0.00E+00	2.00E-02	9.16E+00	1.50E+00	-2.56E+02
Resources	Resources – resources fossil	[MJ surplus energy]	1.11E+04	2.00E+01	2.44E+00	2.62E+03	0.00E+00	2.32E+00	9.75E+00	1.99E+01	-6.93E+03

RESULTS OF THE LCA - RESOURCE USE: One piece of SL500

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C1	C2	C3	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	9.30E+02	0.00E+00	9.96E+01	0.00E+00	0.00E+00	0.00E+00	6.42E+00	0.00E+00	0.00E+00
PERM	Renewable primary energy resources as material utilization	[MJ]	1.00E+02	0.00E+00	-9.91E+01	0.00E+00	0.00E+00	0.00E+00	-9.64E-01	0.00E+00	0.00E+00
PERT	Total use of renewable primary energy resources	[MJ]	1.03E+03	1.88E+00	4.76E-01	1.04E+04	0.00E+00	1.34E-01	5.46E+00	3.02E-01	-6.79E+02
PENRE	Non-renewable primary energy as energy carrier	[MJ]	3.68E+03	0.00E+00	1.43E+01	0.00E+00	0.00E+00	0.00E+00	2.16E+02	0.00E+00	0.00E+00
PENRM	Non-renewable primary energy as material utilization	[MJ]	2.14E+02	0.00E+00	-1.17E+01	0.00E+00	0.00E+00	0.00E+00	-2.02E+02	0.00E+00	0.00E+00
PENRT	Total use of non-renewable primary energy resources	[MJ]	3.89E+03	3.35E+01	2.62E+00	2.35E+04	0.00E+00	2.38E+00	1.38E+01	1.50E+00	-1.76E+03
SM	Use of secondary material	[kg]	4.78E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

NRSF	Use of non-renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	[m³]	1.88E+00	2.18E-03	2.42E-02	1.21E+01	0.00E+00	1.55E-04	2.26E-02	4.40E-03	-1.79E+00

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One piece of SL500

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C1	C2	C3	C4	D
HWD	Hazardous waste disposed	[kg]	5.47E-03	1.56E-06	3.86E-09	9.73E-06	0.00E+00	1.11E-07	1.35E-08	1.44E-08	-1.05E-06
NHWD	Non-hazardous waste disposed	[kg]	3.72E+01	5.12E-03	2.60E-01	1.67E+01	0.00E+00	3.64E-04	6.61E-01	3.82E+00	-3.25E+01
RWD	Radioactive waste disposed	[kg]	2.14E-01	4.14E-05	1.38E-04	3.57E+00	0.00E+00	2.95E-06	1.79E-03	3.82E-05	-9.40E-02
CRU	Components for re-use	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	[kg]	0.00E+00	0.00E+00	5.86E+00	0.00E+00	0.00E+00	0.00E+00	2.21E+01	0.00E+00	2.14E-01
MER	Materials for energy recovery	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	Exported electrical energy	[MJ]	0.00E+00	0.00E+00	1.26E+01	0.00E+00	0.00E+00	0.00E+00	1.50E+01	0.00E+00	0.00E+00
EET	Exported thermal energy	[MJ]	0.00E+00	0.00E+00	2.28E+01	0.00E+00	0.00E+00	0.00E+00	2.71E+01	0.00E+00	0.00E+00

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ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	ASSA ABLOY Entrance Systems AB
Program holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-ASA-20220082-IBC1-EN
Issue date	18.08.2022
Valid to	17.08.2027

ASSA ABLOY SL500 Sliding Door Operator ASSA ABLOY Entrance Systems

www.bau-umwelt.com / <https://epd-online.com>



1. General Information

ASSA ABLOY Entrance Systems

Program holder

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10117 Berlin
Germany

Declaration number

EPD-ASA-20220082-IBC1-EN

This Declaration is based on the Product Category Rules:

IBU: PCR Automatic doors, automatic gates, and revolving door systems (door systems) Version 1.6 (11. 2017). (PCR tested and approved by the independent expert committee (SVA))

Issue date

18.08.2022

Valid to

17.08.2027



Dipl.-Ing. Hans Peters
(President of IBU e.V.)



Dr. Alexander Röder
(Managing Director of IBU e.V.)

ASSA ABLOY SL500 Sliding Door Operator

Owner of the Declaration

ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

Declared product / Declared unit

The declaration represents 1 automatic ASSA ABLOY SL500 sliding door operator

Scope:

This declaration and its LCA study are relevant to the ASSA ABLOY SL500 sliding door operator. The final assembly and production stage occurs in Ostrov u Stribra, Czech Republic at D5 Logistic Park 34901 Ostrov u Stribra, Czech Republic. Components are sourced from international tier one suppliers. The ASSA ABLOY SL500 sliding door operator length vary according to project requirements; an operator maneuvering 2 door leaves (bi-parting) with a beam length of 4.1 m is used in this declaration. The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as EN 15804.

Verification

The CEN Standard EN 15804 serves as the core PCR

Independent verification of the declaration and data according to ISO 14025

☐ internally ☒ externally



Dr. Wolfram Trinius
(Independent tester appointed by SVA)

2. Product

2.1 Product description

Product name: ASSA ABLOY SL500 sliding door operator

Product characteristics: Automatic sliding door operator

The modular ASSA ABLOY SL500 sliding door operator is an automatic sliding door operator developed to suit all building entrances. It is easy to install for both new construction and retrofit application, and it can be adapted to a wide range of entrance requirements.

The ASSA ABLOY SL500 sliding door operator can be used for both internal and external entrance solutions. It can be mounted on the building surface structure or on a supporting beam.

The ASSA ABLOY SL500 sliding door operator works electromechanically. The operator is designed in a

modular way and consists of different variants of support beams, covers, drive units, control unit and power supplies. As an option the operator can be equipped with an emergency unit, electromechanical locking devices, additional functionality board and sensors. The drive unit transmits movement to the door leaves by means of a tooth belt. The door leaf is fitted to a carriage wheel that rolls on a sliding track.

The operator is self-adjusting to changing weather conditions, making it suitable for different environments. It combines optimal safety with maximum product life cycle if maintenance requirements are met. The automatic sliding door operator is generally made of aluminium and steel.

The ASSA ABLOY SL500 sliding door operator has been designed to meet all operational and safety requirements and is certified by a third party to fulfill the *European Directives* and the standards issued by the *European Standardization Committee (CEN)*.

For the placing on the market in the European Union/European Free Trade Association (EU/EFTA) and Turkey the following European directives apply to the ASSA ABLOY SL500 sliding door operator:

- 2014/30/EU Electromagnetic Compatibility Directive (EMCD)
- 2006/42/EC Machinery Directive (MD)
- 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment with the applicable amendments (RoHS).

These directives provide for CE marking of the product and issue a Declaration of Conformity.

Harmonized European standards, which have been applied:

- EN 60335-1 Household and similar electrical appliances -Safety -Part 1: General requirements
- EN 60335-2-103 Household and similar electrical appliances -Safety -Part 2: Particular requirements for drives for gates, doors and windows
- EN 61000-6-2 Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
- EN 61000-6-3 Electromagnetic compatibility (EMC) — Part 6-3: Generic standards — Emission standard for residential, commercial and light-industrial environments
- EN ISO 13849-1 Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design
- EN 16005 Power operated pedestrian door sets - Safety in use -Requirements and test methods

Other standards or technical specifications, which have been applied:

- DIN 18650-1 Powered pedestrian doors - Part 1: Product requirements and test methods
- DIN 18650-2 Powered pedestrian doors - Part 2: Safety at powered pedestrian doors
- IEC 60335-1 Household and similar electrical appliances -Safety -Part 1: General requirements
- IEC 60335-2-103 Household and similar electrical appliances Safety Part 2-103: Particular requirements for drives for gates, doors and windows.

Disposal of the product is subject to the Waste from Electrical and Electronic Equipment (WEEE) Directive within Europe, Directive 2012/19/EU together with the RoHS Directive 2011/65/EU and its amending Directive 2015/863.

For the application and use the respective national provisions apply.

2.2 Application

The ASSA ABLOY SL500 sliding door operator is an automatic door operator suitable for low to very intense pedestrian traffic flow. From hospital entrances to retail and transportation applications, the smooth, quiet

operation and flexible platform makes the ASSA ABLOY SL500 sliding door operator ideal for any segment.

The operator offers a number of sustainable features to help minimize power usage, reduce environmental footprints and air infiltration to meet the increased demands of energy efficiency.

The ASSA ABLOY SL500 sliding door operator offer a number of highly intelligent features as standard, specially designed for optimal pedestrian safety at all times around-the-clock.

The operator is convenient as it is built upon a modular platform to ensure optimal user flexibility. Serviceability is taken into account in order to ensure minimal hassle, optimal product life cycle and smooth maintenance. The ASSA ABLOY SL500 sliding door operator can be tailored to any requirements. It can be easy upgraded and modernized to meet new requirements without time-consuming and complex entrance re-modelling.

The ASSA ABLOY SL500 sliding door operator incorporates entrance security into its design and operation from start. Not only does it come with a number of clever features as standard - it is also ready for add-on locking configurations.

2.3 Technical Data

The product has the following technical properties:

Features

Name	Value
Clear opening: Bi-parting	SL500-2: 1000 – 3000mm
Clear opening: Single Slide	SL500-R/L: 800 – 3000mm
Suitable for doors up to 65 mm thickness	
Profile finish	- anodized aluminium, colour on request - painted in colour according to RAL card

Technical Data

Name	Value
Mains power supply	100 V AC -10% to 240 V AC +10%, 50/60 Hz, fuse 10 AT (building installation)
Power consumption	Max 250 W
Auxiliary voltage	24 V DC, 1 A
Opening/closing speed	SL500: Variable up to approx. 1.4 m/s (SL500-2)
Hold open time	0-60 s
Recommended max. door weight (Bi-parting without break-out)	SL500-2: 200 kg/leaf
Recommended max. door weight (Single Slide without break-out)	SL500-R/L 240 kg
Ambient temperature	-20 °C to +50 °C

2.4 Delivery status

The ASSA ABLOY SL500 sliding door operator is delivered ready for installation.

2.5 Base materials / Ancillary materials

The average composition of ASSA ABLOY SL500 sliding door operator is as follows:

Component	Percentage in mass (%)
Aluminium	47.876
Brass	0.007
Copper	0.040
Plastics	8.825
Stainless steel	1.299
Steel	24.329
Zinc	0.356
Electronic	1.903
Electro_mechanics	15.062
Paper	0.192
others	0.111
Total	100.0

This product/article/at least one partial article contains substances listed in the candidate list (date: 05.08.2022) exceeding 0.1 percentage by mass: no.

This product/article/at least one partial article contains other CMR substances in categories 1A or 1B which are not on the candidate list, exceeding 0.1 percentage by mass: no.

Biocide products were added to this construction product or it has been treated with biocide products (this then concerns a treated product as defined by the (EU) Ordinance on Biocide Products No. 528/2012): no.

2.6 Manufacture

The primary manufacturing processes are made by tier one suppliers and the final manufacturing processes for operator units occur in the factory in Ostrov, Czech Republic. The profiles are machined and surface treated; either anodized (externally) or powder coated (internally). Other parts such as electronics etc. arrive from tier one suppliers or the factory in China and a final assembly is done in Ostrov. The operators are packed in cardboard boxes and forwarded to on-site installation. The certified quality management system, *EN ISO 9001:2015*, ensures high standards.

Offcuts and scraps during the manufacturing process are directed to a recycling unit. Wastewater are cleared on-site and waste is sent for disposal.

Waste codes according to *European Waste Catalogue and Hazardous Waste List (EWC)* - Valid from 1 January 2002.

EWC 12 01 01 Ferrous metal filings and turnings
EWC 12 01 03 Non-ferrous metal filings and turnings
EWC 17 02 03 plastic
EWC 17 04 01 copper, bronze, brass
EWC 17 04 02 aluminium
EWC 17 04 05 iron and steel
EWC 17 04 11 Cables with the exception of those outlined in 17 04 10

2.7 Environment and health during manufacturing

ASSA ABLOY Entrance Systems is committed to producing and distributing door opening solutions with minimal environmental impact, where health & safety (H&S) is the primary focus for all employees and associates.

- Environmental operations, Greenhouse Gas emissions (GHG), energy, water, waste, volatile organic compounds (VOC), surface treatment and

H&S are being routinely monitored. Inspections, audits, and reviews are conducted periodically to ensure that applicable standards are met and Environment Management program effectiveness is evaluated.

- Code of Conduct covers human rights, labor practices and decent work. The management of ASSA ABLOY Entrance Systems is aware of their environmental roles and responsibilities, providing appropriate training, supporting accountability and recognizing outstanding performance.
- Preparation and manufacturing conditions (including the process of powder coating) in the factory of Ostrov do not require special health and safety measures. Standard health and safety measures (work gloves, hearing protection, safety shoes, dust mask when sanding and milling, dust extraction, etc.) are observed where appropriate.
- Water and soil contamination does not occur and all production related waste is processed internally in the appropriate manner.

2.8 Product processing/Installation

The ASSA ABLOY SL500 sliding door operator is supplied ready for installation. The installation is performed by trained and qualified technicians.

2.9 Packaging

Packaging exists for the purpose of protection during transportation. ASSA ABLOY Entrance Systems' sliding door systems are initially packaged in polystyrene film and corrugated cardboard. All packaging is recyclable.

Material	Value (%)
Cardboard/paper	95.24
Plastics	4.76
Total	100.0

All materials incurred during installation are directed to a recycling unit.

Waste codes according to *European Waste Catalogue and Hazardous Waste List (EWC)* - Valid from 1 January 2002.

EWC 15 01 01 paper and cardboard packaging
EWC 15 01 02 plastic packaging

2.10 Condition of use

Regular inspections shall be made according to national regulations and product documentation by an ASSA ABLOY Entrance Systems' trained and qualified technician. The number of service occasions should be in accordance with national requirements and product documentation. Service is recommended according to the "Service Log Book".

Regular inspections and cleaning should be performed by the owner of the product, according to the "User's Manual".

The best way to remove dust and dirt from the ASSA ABLOY SL500 sliding door operator is to use water and a soft cloth or a sponge. A gentle detergent may be used. To maintain the quality of the enamel layer, the surfaces should be cleaned three times/year (once/four month's period). The cleaning should be documented.

- Do not expose profiles to alkalis. Aluminium is sensitive to alkalis.
- Do not clean with high-pressure water. Operator, programme selector and sensor may be damaged and water may enter the profiles.

- Do not use polishing detergent.
- Do not scrub with materials like Scotch-brite, as this will cause mechanical damage.

2.11 Environment and health during use

There is no harmful emissive potential. Minimal risk for personal injury if correctly configured and maintenance recommendations apply.

2.12 Reference service life

The product has a reference service life of more than 1.000.000 cycles and 10 years of standard daily use (with the recommended maintenance and service program). For this EPD a lifetime of 10 years was considered.

2.13 Extraordinary effects

Fire

The ASSA ABLOY SL500 sliding door operator is tested for usage in fire and smoke protection doors according to *EN1634-1:2008*.

Water

Contains no substances that have any impact on water in case of a flood. Product operation can be influenced.

Mechanical destruction

No danger to the environment can be anticipated during mechanical destruction.

2.14 Re-use phase

The product is possible to be re-used during the reference service life and be moved from one door to another.

All recyclable materials are directed to a recycling unit where they are recycled (brass, electronics, electro-mechanics, stainless steel, steel, and aluminium).

On the other hand, the plastic components are sent to the waste incineration plant for its energy recovery.

Waste codes according to *European Waste Catalogue and Hazardous Waste List (EWC)* - Valid from 1 January 2002:

EWC 16 02 14 Used devices with the exception of those outlined in 16 02 09 to 16 02 13

EWC 17 02 01 wood

EWC 17 02 03 plastic

EWC 17 04 01 copper, bronze, brass

EWC 17 04 02 aluminium

EWC 17 04 05 iron and steel

EWC 17 04 11 Cables with the exception of those outlined in 17 04 10

2.15 Disposal

The product can be mechanically dissembled to separate the different materials. The majority of components are steel and aluminium which will be recycled. The plastic components are used for energy recovery in an incineration plant.

The disposal of the product is subject to the Waste Electrical and Electronic Equipment (WEEE) Directive within Europe, *Directive 2012/19/EU*

2.16 Further information

For further information and additional contact:

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3. LCA: Calculation rules

3.1 Declared Unit

The declaration refers to the functional unit of 1 piece of the ASSA ABLOY SL500 sliding door operator as specified in IBU PCR Part B.

Declared unit

Name	Value	Unit
Mass (without packaging)	29.751	kg
Mass packaging	6.151	kg
Declared unit for sliding door operator (dimensions acc. to this PCR)	1	piece

3.2 System boundary

Type of the EPD: cradle to gate with options.
The following life cycle phases were considered:

Production stage:

- A1 – Raw material extraction and processing
- A2 – Transport to the manufacturer and
- A3 – Manufacturing

Construction stage:

- A4 - Transport from the gate to the site
- A5 – Packaging waste processing

Use stage related to the operation of the building includes:

- B6 – Operational energy use (Energy consumption for operation)

End-of-life stage:

- C1 – De-construction/demolition
- C2 – Transport to waste processing
- C3 – Waste processing for recycling and
- C4 – Disposal (landfill, waste for incineration)

This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

- Benefits and loads beyond the system boundaries: D – Declaration of all benefits and loads

3.3 Estimates and assumptions

Transportation:

Data on mode of transport and distances, as reported by suppliers were used for those materials and parts contributing more than 2 % of the total product mass. In case of unknown transport distances for parts and materials, contributing less than 2 % to the total product mass, transport by road over an average distance of 500 km was assumed.

Use phase:

For the use phase, it is assumed that the sliding door system is used in the European Union, thus an EU electricity grid mix is considered within this stage.

According to the most representative scenario, the operating hours of the product are accounted for 2130 hours in on mode, 2130 hours in standby mode and finally 4260 hours in idle mode per year (355 days per year in use); the power consumption throughout the whole life cycle is 3322.8 kWh

EoL:

In the End-of-Life stage, for all the materials from the product which can be recycled (steel, aluminium, electronic parts, electro-mechanics, copper, stainless steel, zinc and brass) a recycling scenario with a 100% collection rate was assumed. The plastic components are sent for energy recovery within a waste incineration process.

EoL is assumed to happen within EU-28. Furthermore, a transport distance by truck of 100 km has been assumed in the model.

3.4 Cut-off criteria

In the assessment, all available data from the production process are considered, i.e. all raw materials used, auxiliary materials (e.g. lubricants), thermal energy consumption and electric power consumption - including material and energy flows contributing less than 1 % of mass or energy (if available). In case a specific flow contributing less than 1 % in mass or energy is not available, worst-case assumption proxies are selected to represent the respective environmental impacts.

Impacts relating to the production of machines and facilities required during production are out of the scope of this assessment.

3.5 Background data

For life cycle modeling of the considered products, the *GaBi 10 Software System for Life Cycle Engineering*, developed by Sphera, is used *GaBi 10 2021a*

The *GaBi*-database contains consistent and documented datasets which are documented in the online *GaBi*-documentation *GaBi 10 2021b*

To ensure comparability of results in the LCA, the basic data of *GaBi* database were used for energy, transportation and auxiliary materials.

3.6 Data quality

The requirements for data quality and background data correspond to the specifications of the *IBU PCR Part A*.

Sphera performed a variety of tests and checks during the entire project to ensure high quality of the completed project. This obviously includes an extensive review of project-specific LCA models as well as the background data used.

The technological background of the collected data reflects the physical reality of the declared products. The datasets are complete and conform to the system boundaries and the criteria for the exclusion of inputs and outputs.

All relevant background datasets are taken from the *GaBi 10* software database.

3.7 Period under review

The period under review is 2020 (12-month average).

3.8 Allocation

Regarding incineration, the software model for the waste incineration plant (WIP) is adapted according to the material composition and heating value of the combusted material. In this EPD the following specific life cycle inventories for the WIP are considered:

- Waste incineration of plastic
- Waste incineration of paper
- Waste incineration of electronic scrap

Regarding the recycling material of metals, the metal parts in the EoL are declared as end-of-waste status. Thus, these materials are considered in module D. Specific information on allocation within the background data is given in the *GaBi* dataset documentation.

3.9 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account. *GaBi 10 2021b* serves as background database for the calculation.

4. LCA: Scenarios and additional technical information

The following technical information is a basis for the declared modules or can be used for developing specific scenarios in the context of a building assessment if modules are not declared (MND).

Information on describing the biogenic Carbon Content at factory gate

Name	Value	Unit
Biogenic Carbon Content in product	0.02	kg C
Biogenic Carbon Content in accompanying packaging	2.52	kg C

Transport to the building site (A4)

Name	Value	Unit
Litres of fuel diesel with maximum load (27t payload)	27.505	kg/100km
Transport distance truck (primary target market is EU 28)	1166	km
Capacity utilization (incl. empty runs) of truck	61	%

Installation into the building (A5)

Name	Value	Unit
Output substances following waste treatment on site (paper/cardboard packaging)	5.86	kg
Output substances following waste treatment on site (plastic packaging)	0.29	kg

Reference service life

Name	Value	Unit
Reference service life	10	a

Operational energy use (B6)

Name	Value	Unit
Electricity consumption per RSL (10 years, 355 days per year)	3322.8	kWh
Hours per day in on mode	6	h
Hours per day in stand-by mode	6	h
Hours per day in idle mode	12	h
Power consumption – on mode	71	W
Power consumption – stand-by mode	25	W
Power consumption – idle mode	30	W

*Total energy consumed during the whole product life was calculated using following formula:

$$(W_{active_mode} \cdot h_{active_mode} + W_{idle_mode} \cdot h_{idle_mode} + W_{stand_by_mode} \cdot h_{stand_by_mode}) \cdot Life_span \cdot days_year \cdot 0.001$$

Where:

- W_{active_mode} - Energy consumption in active mode in W
- h_{active_mode} - Operation time in active mode in hours
- W_{idle_mode} - Energy consumption in idle mode in W
- h_{idle_mode} - Operation time in idle mode in hours
- $W_{stand_by_mode}$ - Energy consumption in stand-by mode in W
- $h_{stand_by_mode}$ - Operation time in stand-by mode in hours
- $Life_span$ - Reference service life of product
- $days_year$ - Operation days per year

- 0.001 - Conversion factor from Wh to kWh.

End of life (C1-C4)

Name	Value	Unit
Collected separately aluminium, steel, brass, plastics, stainless steel, copper, electronic, electro mechanics etc.	29.75	kg
Incineration of plastic parts	2.68	kg
Recycling aluminium, steel, electronic, electro-mechanics, stainless steel, copper, iron and brass	27.04	kg
Landfill of others	0.03	kg

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Name	Value	Unit
Collected separately waste type (including packaging)	35.869	kg
Recycling aluminium	39.708	%
Recycling brass	0.006	%
Recycling copper	0.033	%
Recycling stainless steel	1.078	%
Recycling steel	20.179	%
Recycling zinc	0.296	%
Recycling electronic	1.579	%
Recycling electro mechanics	12.493	%
Incineration of plastic parts	7.320	%
Incineration of paper parts	0.159	%
Incineration of packaging (paper, wood and plastic) (from A5)	17.149	%

5. LCA: Results

Results shown are calculated according to EN 15804+A2.

Note:

EP-freshwater: This indicator has been calculated as “kg P eq” as required in the characterization model (EUTREND model, Struijs et al., 2009b, as implemented in ReCiPe; <http://eplca.jrc.ec.europa.eu/LCDN/developerEF.xhtml>).

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END-OF-LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement ¹⁾	Refurbishment ¹⁾	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	X	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One piece of SL500

Core Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ -Eq.]	2.83E+02	2.52E+00	8.31E+00	1.34E+03	0.00E+00	1.79E-01	7.46E+00	1.33E+00	-1.46E+02
GWP-fossil	[kg CO ₂ -Eq.]	2.93E+02	2.51E+00	2.08E-01	1.34E+03	0.00E+00	1.78E-01	7.38E+00	1.33E+00	-1.46E+02
GWP-biogenic	[kg CO ₂ -Eq.]	-1.01E+01	-4.29E-03	8.10E+00	4.46E+00	0.00E+00	-3.05E-04	8.06E-02	-4.29E-03	-2.53E-01
GWP-luluc	[kg CO ₂ -Eq.]	1.84E-01	2.03E-02	1.37E-04	1.94E+00	0.00E+00	1.45E-03	1.15E-03	2.47E-04	-4.89E-02
ODP	[kg CFC11-Eq.]	4.23E-09	3.02E-16	1.50E-15	2.94E-11	0.00E+00	2.15E-17	1.59E-14	1.09E-15	2.71E-11
AP	[mol H ⁺ -Eq.]	1.41E+00	2.58E-03	2.33E-03	2.95E+00	0.00E+00	1.83E-04	2.31E-03	8.25E-04	-8.86E-01
EP-freshwater	[kg PO ₄ -Eq.]	7.93E-04	7.64E-06	2.93E-07	3.57E-03	0.00E+00	5.43E-07	2.02E-06	2.63E-07	-5.61E-05
EP-marine	[kg N-Eq.]	2.24E-01	7.51E-04	8.40E-04	6.56E-01	0.00E+00	5.34E-05	5.60E-04	2.69E-04	-1.08E-01
EP-terrestrial	[mol N-Eq.]	2.42E+00	9.04E-03	1.05E-02	6.89E+00	0.00E+00	6.43E-04	7.36E-03	3.39E-03	-1.17E+00
POCP	[kg NMVOC-Eq.]	6.81E-01	2.09E-03	2.23E-03	1.80E+00	0.00E+00	1.48E-04	1.56E-03	7.44E-04	-3.38E-01
ADPE	[kg Sb-Eq.]	1.83E-02	1.80E-07	2.36E-08	3.87E-04	0.00E+00	1.28E-08	2.12E-07	1.58E-08	-1.44E-02
ADPF	[MJ]	3.88E+03	3.35E+01	2.62E+00	2.35E+04	0.00E+00	2.38E+00	1.38E+01	1.50E+00	-1.76E+03
WDP	[m ³ world-Eq deprived]	2.94E+01	2.25E-02	1.03E+00	2.92E+02	0.00E+00	1.60E-03	8.51E-01	1.83E-01	-2.11E+01
Caption	GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential									

RESULTS OF THE LCA - RESOURCE USE: One piece of SL500

Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
PERE	[MJ]	9.30E+02	0.00E+00	9.96E+01	0.00E+00	0.00E+00	0.00E+00	6.42E+00	0.00E+00	0.00E+00
PERM	[MJ]	1.00E+02	0.00E+00	-9.91E+01	0.00E+00	0.00E+00	0.00E+00	-9.64E-01	0.00E+00	0.00E+00
PERT	[MJ]	1.03E+03	1.88E+00	4.76E-01	1.04E+04	0.00E+00	1.34E-01	5.46E+00	3.02E-01	-6.79E+02
PENRE	[MJ]	3.68E+03	0.00E+00	1.43E+01	0.00E+00	0.00E+00	0.00E+00	2.16E+02	0.00E+00	0.00E+00
PENRM	[MJ]	2.14E+02	0.00E+00	-1.17E+01	0.00E+00	0.00E+00	0.00E+00	-2.02E+02	0.00E+00	0.00E+00
PENRT	[MJ]	3.89E+03	3.35E+01	2.62E+00	2.35E+04	0.00E+00	2.38E+00	1.38E+01	1.50E+00	-1.76E+03
SM	[kg]	4.78E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m ³]	1.88E+00	2.18E-03	2.42E-02	1.21E+01	0.00E+00	1.55E-04	2.26E-02	4.40E-03	-1.79E+00
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water									

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One piece of SL500

Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
HWD	[kg]	5.47E-03	1.56E-06	3.86E-09	9.73E-06	0.00E+00	1.11E-07	1.35E-08	1.44E-08	-1.05E-06
NHWD	[kg]	3.72E+01	5.12E-03	2.60E-01	1.67E+01	0.00E+00	3.64E-04	6.61E-01	3.82E+00	-3.25E+01
RWD	[kg]	2.14E-01	4.14E-05	1.38E-04	3.57E+00	0.00E+00	2.95E-06	1.79E-03	3.82E-05	-9.40E-02
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	0.00E+00	0.00E+00	5.86E+00	0.00E+00	0.00E+00	0.00E+00	2.21E+01	0.00E+00	2.14E-01
MER	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	1.26E+01	0.00E+00	0.00E+00	0.00E+00	1.50E+01	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	2.28E+01	0.00E+00	0.00E+00	0.00E+00	2.71E+01	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EEE = Exported thermal energy									

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: One piece of SL500

Indicator	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
PM	[Disease Incidence]	1.48E-05	1.53E-08	1.29E-08	2.48E-05	0.00E+00	1.09E-09	2.43E-08	9.96E-09	-8.78E-06
IR	[kBq U235-Eq.]	3.66E+01	5.99E-03	2.13E-02	5.86E+02	0.00E+00	4.26E-04	2.91E-01	3.55E-03	-1.91E+01
ETP-fw	[CTUe]	1.67E+03	2.36E+01	1.24E+00	1.01E+04	0.00E+00	1.68E+00	6.66E+00	7.34E-01	-5.91E+02
HTP-c	[CTUh]	8.42E-07	4.95E-10	6.58E-11	2.78E-07	0.00E+00	3.52E-11	2.34E-10	9.81E-11	-7.91E-08
HTP-nc	[CTUh]	4.43E-06	2.55E-08	2.85E-09	1.02E-05	0.00E+00	1.82E-09	1.58E-08	9.62E-09	-1.40E-06
SQP	[–]	1.77E+03	1.17E+01	6.95E-01	7.49E+03	0.00E+00	8.34E-01	4.20E+00	3.98E-01	-7.97E+01
Caption	PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index									

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”.

The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

6. LCA: Interpretation

This chapter contains an interpretation of the Life Cycle Impact Assessment categories. Stated percentages in the whole interpretation are related to the overall life cycle, excluding credits (module D).

The production stage (modules A1-A3) contributes between 14 % and 33 % to the overall results for all the environmental impact assessment categories hereby considered, except for the abiotic depletion potential (ADPE), for which the contribution from the production stage accounts for approx. 97.9 % - this impact category describes the reduction of the global amount of non-renewable raw materials, therefore, as expected, it is mainly related to the extraction of raw materials (A1). Also, ODP shows a higher contribution of 99.3 %

Within the production stage, the main contribution for all the impact categories is the production of steel and aluminium mainly due to the energy consumption in these processes. These two materials account for

approx. 59.8 % to the overall mass of the product, therefore, the impacts are in line with the mass composition of the product. The environmental impacts for the transport (A2) have a negligible impact within this stage.

To reflect the use stage (module B6), the energy consumption was included, and it has a major contribution to all the impact assessment categories considered - between 67 % and 86 %, with the exception of ADPE (2.07 %) and ODP (0.69 %). This is a result of 6 hours of operation in on mode, 6 hours in stand-by mode and 12 hours in idle mode per day and per 355 days in a year.

In the end-of-life stage, there are loads and benefits (module D, negative values) considered. The benefits are considered beyond the system boundaries and are declared for the recycling potential of the metals and for the credits from the incineration process (energy substitution).

7. Requisite evidence

Not applicable in this EPD.

8. References

Standards, norms, directives:

CPR

Regulation (EU) No. 305/2011, Construction Product Regulation (CPR)- laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC

DIN EN ISO 10140-2

DIN EN ISO 10140-2:2010, Acoustics - Laboratory measurement of sound insulation of building elements - Part 2: Measurement of airborne sound insulation (ISO 10140-2:2010); German version EN ISO 10140-2:2010

DIN EN ISO 13849-1

DIN EN ISO 13849-1:2016, Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design

DIN 4102

DIN 4102-1 B2:1998, Reaction to fire tests - Ignitability of building products subjected to direct impingement of flame.

DIN EN 12424

DIN EN 12424:2000, Industrial, commercial and garage doors and gates - Resistance to wind load - Classification; German version EN 12424:2000

DIN EN 12426

DIN EN 12424:2000, Industrial, commercial and garage doors and gates. Air permeability. Classification; German version EN 12424:2000

DIN EN 12428

DIN EN 12428:2013, Industrial, commercial and garage doors - Thermal transmittance - Requirements for the calculation; German version EN 12428:2013

DIN EN ISO 14025

DIN EN ISO 14025:2010, Environmental labels and declarations - Type III environmental declarations - Principles and procedures

DIN EN 60335-1

DIN EN 60335-1:2020, Household and similar electrical appliances - Safety - Part 1: General requirements

DIN EN 60335-2

DIN EN 60335-2:2016, Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows

EN ISO 10140-2

EN ISO 10140-2:2010, Acoustics - Laboratory measurement of sound insulation of building elements - Part 2: Measurement of airborne sound insulation (ISO 10140-2:2010); German version EN ISO 10140-2:2010

EN 12425

EN 12425:2000, Industrial, commercial and garage doors and gates - Resistance to water penetration - Classification; German version EN 12425:2000

EN 12453

EN 12453:2017, Industrial, commercial and garage doors and gates – Safety in use of power operated doors – Requirements and test methods

EN 13241-1

EN 13241:2003+A2:2016, Industrial, commercial, garage doors and gates - Product standard, performance characteristics

EN 15804+A2

EN 15804:2014+A2:2019, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

EN 61000-6-2

EN 61000-6-2:2005, Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments

EN 61000-6-3

EN 61000-6-3:2007, Electromagnetic compatibility (EMC) - Part 6-3: Generic Standards - Emission standard for residential, commercial and light-industrial environments

EWC

European Waste Catalogue established by Commission Decision 2000/532/EC

IEC 60335-1

IEC 60335-1:2020, Household and similar electrical appliances - Safety - Part 1: General requirements

IEC 60335-2

IEC 60335-2:2016, Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows

ISO 9001

ISO 9001:2015, Quality management systems - Requirements with guidance for use

ISO 14001

ISO 14001:2015, Environmental management systems — Requirements with guidance for use

2006/42/EC

European directive on machinery, and amending Directive 95/16/EC (recast)

2011/65/EC

European directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment, and its amendment directives including 2015/863/EC (RoHS directive)

2012/19/EU

European directive on waste electrical and electronic equipment (WEEE)

2014/30/EU

European directive on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)

2015/863/EU

European directive amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances

Other sources:

GaBi 10 2021a

GaBi 10 2021: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, Sphera, Echterdingen, 1992-2018.

GaBi 10 2021b

GaBi 10 2021b: Documentation of GaBi 8: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, Sphera, Echterdingen, 1992-2021.
<https://gabi.sphera.com/internationalsupportgabi>

IBU PCR Part A

Institut Bauen und Umwelt e.V., Königswinter (pub.): Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part A: Calculation Rules for the Life Cycle

Assessment and Requirements on the Project Report according to EN 15804+A2:2019, Version 1.1.1, 2021
www.ibu-epd.de

IBU PCR Part B

IBU PCR Part B: PCR Guidance-Texts for Building-Related Products and Services. From the range of Environmental Product Declarations of Institute Construction and Environment e.V. (IBU). Part B: Requirements on the EPD for Automatic doors, automatic gates and revolving door systems Version 1.6 (11. 2017)
www.ibu-epd.com

IBU 2021

General Instructions for the EPD programme of Institut Bauen und Umwelt e.V. Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021.
www.ibu-epd.com

TRACI Methodology

Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts (TRACI), EPA/600/R-12/554 2012
asdas

9. Annex

Results shown below were calculated using *TRACI Methodology*.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END-OF-LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement ¹⁾	Refurbishment ¹⁾	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	X	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One piece of SL500

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C1	C2	C3	C4	D
GWP	Global warming potential, excl. biogenic	[kg CO ₂ -eq.]	1.15E+04	1.03E+01	6.81E+00	3.47E+03	0.00E+00	1.20E+00	2.72E+02	1.28E+02	-6.52E+03
GWP	Global warming potential, incl. biogenic	[kg CO ₂ -eq.]	1.01E+04	1.03E+01	1.04E+03	3.45E+03	0.00E+00	1.19E+00	7.21E+02	1.27E+02	-6.52E+03
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-eq.]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AP	Acidification potential of land and water	[kg SO ₂ -eq.]	4.34E+01	1.00E-02	1.87E+00	7.57E+00	0.00E+00	0.00E+00	8.90E-01	1.00E-01	-2.65E+01
EP	Eutrophication potential	[kg N- eq.]	1.77E+00	0.00E+00	6.00E-02	7.10E-01	0.00E+00	0.00E+00	3.00E-02	0.00E+00	-7.20E-01
Smog	Ground-level smog formation potential	[kg O ₃ -eq.]	5.17E+02	1.50E-01	1.96E+01	1.01E+02	0.00E+00	2.00E-02	9.16E+00	1.50E+00	-2.56E+02
Resources	Resources – resources fossil	[MJ surplus energy]	1.11E+04	2.00E+01	2.44E+00	2.62E+03	0.00E+00	2.32E+00	9.75E+00	1.99E+01	-6.93E+03

RESULTS OF THE LCA - RESOURCE USE: One piece of SL500

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C1	C2	C3	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	9.30E+02	0.00E+00	9.96E+01	0.00E+00	0.00E+00	0.00E+00	6.42E+00	0.00E+00	0.00E+00
PERM	Renewable primary energy resources as material utilization	[MJ]	1.00E+02	0.00E+00	-9.91E+01	0.00E+00	0.00E+00	0.00E+00	-9.64E-01	0.00E+00	0.00E+00
PERT	Total use of renewable primary energy resources	[MJ]	1.03E+03	1.88E+00	4.76E-01	1.04E+04	0.00E+00	1.34E-01	5.46E+00	3.02E-01	-6.79E+02
PENRE	Non-renewable primary energy as energy carrier	[MJ]	3.68E+03	0.00E+00	1.43E+01	0.00E+00	0.00E+00	0.00E+00	2.16E+02	0.00E+00	0.00E+00
PENRM	Non-renewable primary energy as material utilization	[MJ]	2.14E+02	0.00E+00	-1.17E+01	0.00E+00	0.00E+00	0.00E+00	-2.02E+02	0.00E+00	0.00E+00
PENRT	Total use of non-renewable primary energy resources	[MJ]	3.89E+03	3.35E+01	2.62E+00	2.35E+04	0.00E+00	2.38E+00	1.38E+01	1.50E+00	-1.76E+03
SM	Use of secondary material	[kg]	4.78E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

NRSF	Use of non-renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	[m³]	1.88E+00	2.18E-03	2.42E-02	1.21E+01	0.00E+00	1.55E-04	2.26E-02	4.40E-03	-1.79E+00

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One piece of SL500

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C1	C2	C3	C4	D
HWD	Hazardous waste disposed	[kg]	5.47E-03	1.56E-06	3.86E-09	9.73E-06	0.00E+00	1.11E-07	1.35E-08	1.44E-08	-1.05E-06
NHWD	Non-hazardous waste disposed	[kg]	3.72E+01	5.12E-03	2.60E-01	1.67E+01	0.00E+00	3.64E-04	6.61E-01	3.82E+00	-3.25E+01
RWD	Radioactive waste disposed	[kg]	2.14E-01	4.14E-05	1.38E-04	3.57E+00	0.00E+00	2.95E-06	1.79E-03	3.82E-05	-9.40E-02
CRU	Components for re-use	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	[kg]	0.00E+00	0.00E+00	5.86E+00	0.00E+00	0.00E+00	0.00E+00	2.21E+01	0.00E+00	2.14E-01
MER	Materials for energy recovery	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	Exported electrical energy	[MJ]	0.00E+00	0.00E+00	1.26E+01	0.00E+00	0.00E+00	0.00E+00	1.50E+01	0.00E+00	0.00E+00
EET	Exported thermal energy	[MJ]	0.00E+00	0.00E+00	2.28E+01	0.00E+00	0.00E+00	0.00E+00	2.71E+01	0.00E+00	0.00E+00

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ASSA ABLOY

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www.assaabloyentrance.ro
RO17857020

To: **Media Security SRL;**
Address: Dimitrie Cantemir Boulevard 5/4, Chisinau, the Republic of Moldova, MD-2001;
E-mail: maxdsl1024@yahoo.com;
Ref.: Request of authorization and selling spare parts for BESAM type doors of Chisinau International Airport;
Date: 18 of April 2024.

MANUFACTURER'S AUTHORIZATION FORM

The undersigned, **ASSA ABLOY ENTRANCE SYSTEMS PRODUCTION ROMÂNIA S.R.L.**, a company established and operating in accordance with Romanian legislation, having its registered offices in Romania, Hunedoara County, Municipality PEȘTIȘU MARE no. 363, registered with the Trade Registry under number J20/1295/2005, having unique registration code RO 17857020, duly represented by Silviu Gata in their capacity of administrators, (hereinafter called "Assa Abloy Entrance"),

considering that Assa Abloy Entrance is the official and reputable manufacturer of the spare parts for BESAM doors:

1. **Assa Abloy Entrance authorizes the Media Security SRL company to resell the goods mentioned above;**
2. The authorization is valid and given **only for the specific contractual relationship between parties regarding the spare part for Chisinau International Airport project** and could not be extended by default to other (present and/or potential future) projects;
3. **Assa Abloy Entrance authorizes the Media Security SRL company to resell the goods only in the territory of the Republic of Moldova;** in case of breach of this clause, Media Security SRL is losing the warranty provided by Assa Abloy Entrance for its goods and/or services;
4. **Assa Abloy Entrance authorizes the Media Security SRL company to resell the Spare parts for BESAM type doors of Chisinau International Airport without further transformation of goods;** in case of breaching this clause, is applicable the same penalty mention at the article no. 3.

In the framework of the above-mentioned potential contract, Media Security SRL is acting in its own name and on its own behalf, and has no right, power or authority to create any obligation or duty, express or implied, on behalf of Assa Abloy Entrance.

The Media Security SRL is a non-exclusive authorized reseller for the resell of the goods above-mentioned and other goods and services provided by Assa Abloy Entrance in his capacity of official manufacturer in the Republic of Moldova.

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Manufacturer: **ASSA ABLOY ENTRANCE SYSTEMS PRODUCTION ROMANIA SRL**

Representative of the Manufacturer: Vornicu Florin Marius

Signature:



Florin-
Marius
Vornicu

Digitally signed
by Florin-Marius
Vornicu
Date:
2024.04.26
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