

### Certificate of authorization

By this letter we confirm, that the company "**TechPlanet**" SRL, address: (rl. Orhei, Republic of Moldova), fiscal code: 1017606000085, VAT code: 7401154, is a partner of the manufacturer

**"Holík International" s.r.o.** (Za Dvorem 612, 763 14 Zlín 12, Czech Republic) and is authorized to promote and sell our products in the territory of the Republic of Moldova.

All work processes fully comply with our quality certificates.

### Certificat de autorizare

Prin această scrisoare confirmăm, că compania "**TechPlanet**" SRL, adresa: (rl. Orhei, Republica Moldova), cod fiscal: 1017606000085, cod TVA: 7401154, este un partener al producătorului

**"Holík International" s.r.o.** (Za Dvorem 612, 763 14 Zlín 12, Republica Cehă) și are autorizare de a promova și vinde produsele noastre pe teritoriul Republicii Moldova.

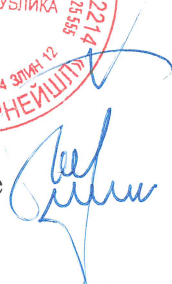
Toate procesele de lucru respectă pe deplin certificatele noastre de calitate.

The authorization is valid till 31.12.2024.

Zlín, 15<sup>th</sup> February 2023.



Marek Štefan  
sales representative





Organismul de notificare No. 1023  
**INSTITUTE FOR TESTING AND CERTIFICATION, Inc.**  
trida Tomase Bati 299, Louky, 763 02 Zlin, Czech Republic  
www.itczlin.cz

# Certificat UE de examinare

## No. 23 0006 T/NB

emis în conformitate cu Regulamentul (UE) 2016/425 al Parlamentului European și al Consiliului din 9 martie 2016 privind echipamentul individual de protecție și de abrogare a Directivei Consiliului 89/686/CEE (modulul B), pentru echipamentele individuale de protecție de categoria III :

### Mănuși de protecție pentru pompieri

#### Modelul:

**Diamond Flexi 8111-01, Diamond Evo 8111-02, Diamond Easy 8008, Diamond Long 8111-04, Diamond Short 8111-05, Diamond Compact 8013  
Crystal Flexi 8110-01, Crystal Evo 8110-02, Crystal Easy 8110-03, Crystal Long 8110-04, Crystal Short 8005, Crystal Compact 8038**

Producătorul:

**Holik International s.r.o.**

**Za Dvorem 612**

**763 14 Zlin 12**

**Republica Cehă**

*Codul fiscal No: CZ25322214*

Acest certificat confirmă că echipamentele de protecție individuală (EIP) menționate mai sus îndeplinesc cerințele esențiale de sănătate și siguranță, așa cum sunt menționate în Regulamentul (UE) 2016/425 al Parlamentului European și al Consiliului, specificat în detaliu în standardul tehnic armonizat:

**CSN EN 659+A1:2008 (EN 659:2003+A1:2008)**

și în standardele tehnice:

**CSN EN ISO 21420:2021 (EN ISO 21420:2020)**

Aceste produse sunt în conformitate cu dosarul tehnic al producătorului. Descrierile detaliate ale produselor, rezultatele examinării dosarului tehnic, precum și rezultatele testelor, inclusiv evaluarea acestora, sunt prezentate în Raportul de Evaluare al ITC nr. 723302390/2023 care face parte integrantă din acest Certificat..

*Condiția utilizării acestui certificat și informațiile conexe:*

- Se aplică numai tipului bunului de categoria III supus testării menționate mai sus.*
- Nu implică faptul că organismul notificat a efectuat vreo supraveghere sau control al fabricării bunurilor.*
- Producătorul este obligat să se asigure că toate EIP-urile de tipul respectiv sunt conforme cu tipul aprobat prin prezentul certificat, care trebuie utilizat numai împreună cu una dintre procedurile de evaluare a conformității menționate la articolul 19 litera (c) oricare dintre următoarele: conformitatea cu tipul bazată pe controlul intern al producției plus verificări supravegheate ale produsului la intervale aleatorii (modulul C2) prevăzute în anexa VII sau conformitatea cu tipul bazată pe asigurarea calității procesului de producție (modulul D) prevăzută în anexa VII/Regulamentul European Parlamentul și al Consiliului (UE) 2016/425..*
- Producătorul informează organismul notificat cu privire la toate modificările tehnologice în fabricarea tipului aprobat și, ca urmare a progreselor tehnice, el se informează în mod regulat cu privire la orice modificări standard, precum și modificări ale metodelor de testare efectuate de organismul notificat, care trebuie să aprobă aceste modificări în cazurile necesare prin modificarea prezentului Certificat.*
- Producătorul aplică pe fiecare bunuri de tipul aprobat marca de conformitate CE urmată de numărul organismului notificat, care aprobă sistemul de control al producției în conformitate cu anexa VII (modulul C2) sau VIII (modulul D) la Regulamentul (UE) 2016/425 al Parlamentului European și al Consiliului, conform principiilor stabilite la Regulamentul (CE) no. 765/2008.*

Eliberat în Zlin, data **6 Ianuarie 2023**

Valabil până la: **5 Ianuarie 2028**

**"TRADUCEREA CONFIRM"**



**Mgr. Jiri Hes**

Reprezentantul Organismului de Notificare o.1023



**INSTITUTUL PENTRU TESTARE ȘI CERTIFICARE**  
strada Tomase Bati 299, Louky , 763 02 Zlín , Republica Cehă

## **RAPORT DE EVALUARE**

**Ref. nr .: 723302390/2023**

**Client:** Holik Internațional sro Za  
Dvorem 612  
763 14 Zlín 12  
Republica CEHĂ

**Produs:** Mănuși de protecție pentru pompieri  
**Tip:**  
Diamond Flexi 8111-01, Diamant Evo 8111-02, Diamond Easy 8008, Diamond Long 8111-04, Diamond Short 8111-05, Diamond Compact 8013  
Crystal Flexi 8110-01, Cristal Evo 8110-02, Crystal Easy 8110-03, Cristal Lung 8110-04, Cristal Mi 8005, Crystal Compact 8038

**Autor:** Dipl. Ing . Elena Tomanova

**Emis pe:** 2023-01-06



*Mgr. Jiff El*  
**Reprezentant de Notificată Corp Nu.**  
**1023**



## Introducere

Acest Raport de Evaluare a fost emis pe baza Cererii nr. 723302390 pentru evaluarea conformității echipamentului individual de protecție (EIP) cu cerințele de bază ale Regulament (UE) 2016/425 al Parlamentul European și a Consiliului din 9 Martie 2016 privind echipamentul individual de protecție și de abrogare a Directivei Consiliului 89/686/CEE.

Acest evaluarea ar trebui dovedea cel indeplinire a UE cerințele legislative pentru scopul accesului de produsele evaluate către UE piață.

### 1. Identificare de evaluat personal de protecție echipamente

O descriere detaliată a designului și structurii, inclusiv documentația desenului și specificațiile a materialelor folosite, este dat în dosarul documentației tehnice a produsului Mănuși de protecție pentru pompieri, Tip: Diamond Flexi 8111-01, Diamond Evo 8111-02, Di amond Easy 8111-03, Diamond Long 8111-04, Diamond Short 8008, Diamond Compact 8013 / Cristal Flexi 8110-01, Cristal Evo 8110-02, Cristal Ușor 8110-03, Cristal Lung 8110-04, Cristal Mic de statura 8005, Cristal Compact 8038.

A depus documentația acoperă cel ca urmare a modele și alternative de cel produs: Proba nr.

723302390/A

#### **Mănuși de protecție pentru pompieri**

Tip:

**Diamant Flexi 8111-01, Diamond Evo 8111-02, Diamant Ușor 8111-03, Diamant Lung 8111-04 , Diamant Mic de statura 8008, Diamant Compact 8013**

**Cristal Flexi 8110-01, Cristal Evo 8110-02, Cristal Ușor 8110-03, Cristal Lung 8110-04, Cristal Mic de statura 8005, Cristal Compact 8038**

În cel ca urmare a. numele de produsul tip testament fi folosite ca A mic de statura formă: Diamant/ Cristal.

#### Material compozitie:

palmier parte:

Superior material - Aramidă tricota cu silicon strat, culoare : negru

Strat intermediar - Membrana poliuretan

Căptușeală - Aramidă tricota cu unilateral pieptene, culoare : galben

armare - fără armare alternativ Nomex cu ceramică strat

Înapoi parte:

Superior material - țesătură Nomex , culoare : albastru,

roșu, strat intermediar bej - T e x t i l aramid neșesut Strat

intermediar - Membrana poliuretan

Căptușeală - Aramidă tricota cu unilateral pieptene, culoare : galben

Armare - Tricot aramid cu acoperire

*Tip Cristal - armare pe cel degete și deget mare în cel articulație zonă*

Manșetă Flexi:

Față                   tricota 30% fibra acrilica modificata tip F / 30% vascoza / 20%  
bumbac / 19% poliamidă / 1% fibră antistatică , culoare : negru

inversă -           tricota 30% fibra acrilica modificata tip F / 30% vascoza / 20%  
bumbac / 19% poliamidă / 1% fibră antistatică , culoare : negru



**Manșetă Ușor:**

Față - Nomex țesătură, culoare : albastru, roșu, bej

Verso - Bumbac țesătură cu Proban tratament, culoare :

întuneric albastru

**Manșetă Evo :**

Față - Nomex țesătură, culoare : albastru, roșu, bej

tricota 30% modificat acril fibră tip F / 30% viscoză / 20% bumbac / 19% poliamidă / 1% antistatic fibre , culoare : negru

Verso - Aramidă tricota cu unilateral pieptene, culoare : galben

tricota 30% modificat acril fibră tip F / 30% viscoză / 20% bumbac / 19% poliamidă / 1% antistatic fibre , culoare : negru

**Manșetă Lung:**

Față - țesătură Nomex , culoare : albastru, roșu, bej, centura din poliamida, curea cu flacăra tratament retardant

Verso - Bumbac țesătură cu Proban tratament, culoare : întuneric albastru

**Manșetă Mic de statura:**

Compoziție: Aramidă tricota cu elastan , culoare : galben

**Manșetă Compact:**

Față - Nomex țesătură, culoare : albastru,

roșu, tricot aramid bej cu acoperire

Verso - Bumbac țesătură cu Proban tratament, culoare : întuneric albastru

**Construcție:**

Aceste produse sunt o mănușă cu cinci degete în design 3D, cu material de bază identic compoziție. Țesătura Nomex de pe spate este disponibilă în Nomex culoare albastru închis, Nomex NXT în culoare bej sau roșu. Diferența între tipuri este design manșete. Manșeta Flexi este o combinație de ignifug materiale cu elastic intern stabil, manșeta Easy este o manșetă de bază din țesătură Nomex cu o barieră internă din material tricot adăugat, iar manșeta lungă este o manșetă lungă din țesătură Nomex . Alte alternative sunt manșeta scurtă, care este făcut din țesătură tricotată cu aramid și manșeta Compact. O descriere detaliată este dată mai sus în compoziția materialului. Tipul Crystal are întăriri pe spatele degetelor și zona degetului mare. Tipuri individuale pot fi, de asemenea, fabricate cu opțiunea de întărire cu silicon pentru palmă și cip RFID.

**Destinat utilizare de cel personal de protecție echipamente**

Mănușile sunt concepute pentru a proteja mâinile împotriva riscurilor termice și mecanice. Acestea permit lucrul în medii umede și protecția împotriva substanțelor chimice lichide. Sunt concepute special pentru operațiuni de rutină de stingere a incendiilor pentru salvare și forțelor de pompieri de urgență.

**Clasificare de cel Personal Echipament de protecție**

De operare Mănuși pentru Pompierii, Tip: Diamant eu Cristal Unde clasificate la fel de EIP

**Categorie** Bolnav de producatorul .

Design :

<p style="text-align: center;"><b>DIAMOND Scurt</b></p> 	<p style="text-align: center;"><b>DIAMOND Flex</b></p> 
<p style="text-align: center;"><b>DIAMOND Evo</b></p> 	<p style="text-align: center;"><b>DIAMOND Long</b></p> 
<p style="text-align: center;"><b>DIAMOND</b></p> 	<p style="text-align: center;"><b>DIAMOND Compact</b></p> 



## 2. Documentatie tehnica

Documentația tehnică a fost depusă în limba cehă sa evaluează conformitatea - Mănuși de operare pentru pompieri, tip: Diamond / Cristal - în decembrie 2022. Dosarul de documentație tehnică conține articolele conform Anexei III la Regulamentul (UE) 2016/425 din Parlamentului European și a Consiliului.

## 3. Regulament (UE) 2016/425 din cel Parlamentul European și de Consiliul de 9 martie 2016 privind echipamentul individual de protecție

### 3.1 De bază cerințe pentru cel produs și este specificație în tehnic specificații \_ \_

Cerințele de bază sunt stabilite prin Regulamentul (UE) 2016/425 din Parlamentul European și a Consiliului de 9 martie 2016 pe echipament individual de protecție.

Tabelele nr. 1 până la 3 precizarea analizei de aplicabilitate a cerințele de bază conform Anexei II din Regulamentul (UE) 2016/425 în coloana din dreapta, completată în caz de aplica - ble cerințe de către articole de standardele armonizate declarate în al lor anexa de armonizare ZA sau alte specificații tehnice utilizate pentru dovedirea conformității cu cerințele parțiale respective . Litera „A” din a treia coloană a tabelelor înseamnă că aceste cerințe au fost folosit pentru cel dat EIP, "N / A" abreviere (nu aplicabil) mijloace cel cerința nu aplica pentru cel dat EIP pentru ca este irelevant pentru cel dat destinat utilizare și/sau materialul utilizat.

Coloana 4 a tabelelor Numarul 1 - 3 prevede articolele armonizate standardele care sunt legate prin intermediul legăturilor încrucișate în anexa de armonizare ZA, la cerința de bază respectivă din Regulamentul (UE) 2016/425. Întâlnirea acestor articole ale standardul armonizat dovedeste conformitatea produsului cu cel dat cerința de bază enunțată în coloana din dreapta.

Coloana a cincea a tabelelor nr. 1 - 3 prevede articolele de specificații tehnice nearmonizate - cationi prin care producătorul dovedește conformitatea cu cerința de bază respectivă care nu este inclusă în armonizare . Acestea pot fi articole de nearmonizat N / A - tional sau internațional standardele de asemenea ca articole de armonizat standardele care nu sunt

col. .... a dată printr-un link în armonizarea \_ anexa ZA. În cazuri extraordinare , cerința de bază respectivă poate fi stabilită destul de specific prin regulament, astfel încât conformitatea să poată fi stabilită să fie evaluat direct cu acest articol din regulament, fără a fi necesar specifică cerut de mijloace de A standard armonizat sau alte specificatii tehnice - cation .

În caz de cerințele aplicabile, ultimul coloană de Mese Nu. 1- 3 precizează evaluarea cerinței date, dacă EIP este promovat sau nu. Litera „P” înseamnă că PPE trece cerințele date, „N/P” înseamnă că nu paseaz-o.

#### 4. Concluzie

Organismul notificat NB 1023 a efectuat examinarea UE de tip a echipamentului individual de protecție

#### De operare Mănuși pentru Pompierii,

**Tip: Diamond Flexi 8111-01, Diamond Evo 8111-02, Diamond scurt 8111-03, Diamond Long 8111-04, Diamond Short 8008, Diamond Compact 8013**

**Cristal Flexi 8110-01, Cristal Evo 8110-02, Cristal Ușor 8110-03, Cristal Lung 8110-04, Cristal Mic 8005, Crystal Compact 8038.**

Specificatii tehnice folosit de către producător sunt în conformarea cu de bază cerințele de Regulamentul (UE) 2016/425 al Parlamentul European și de cel Consiliul de 9 martie 2016 privind echipamentul individual de protecție și de abrogare a Directivei Consiliului 89/686/CEE.

Ref. Nr.: 723302390/2023

Pagină 20 de 21

Eșantionul personalului echipamentul de protecție a fost produs în conformitate cu documentația tehnică a producătorului și poate fi utilizat în deplină siguranță în scopul pentru care a fost destinat.

Eșantionul de echipament individual de protecție îndeplinește toate prevederile Regulamentului (UE) 2016/425 al Parlamentului European și al Consiliului din 9 martie 2016 privind echipamentul individual de protecție și de abrogare a Directivei Consiliului 89/686/CEE.

Organismul notificat NB 1023 a decis să emită Certificatul UE de examinare de tip nr. 22 0605 T/NB.

Drepturi de autor: Institutul de testare și certificare , ca ., 2023

”TRADUCEREA CONFIRM”





## UE DECLARAȚIE DE CONFORMITATE

**Producător:**

**Holik Internațional sro**

Za Dvorem 612,  
763 14, Zlín 12,  
ceh Republică

Această Declarație de Conformitate este emis sub responsabilitatea producătorului \_ Holik Internațional sro.

**Produs Identificare:**

**Mănuși de protecție pentru Pompierii, tipuri:**

Diamant Flexi 8111-01, Diamant Evo 8111-02, Diamant Ușor 8111-03, Diamant Lung 8111-04, Diamant Mic 8008,  
Diamant Compact 8013

Cristal Flexi 8110-01, Cristal Evo 8110-02, Cristal Ușor 8110-03, Cristal Lung 8110-04, Cristal Compact 8038, Cristal  
Mic 8005

Mănuși de protecție pentru pompieri, tip: Crystal și Diamond respectă cerințele de bază ale Regulamentului (UE) 2016/425 al Parlamentul European și de cel Consiliu de 9 martie 2016 pe personal de protecție echipamente și îndeplinesc cerințele esențiale de sănătate și siguranță, așa cum sunt menționate în standardele tehnice ČSN EN 21420:2021 și ČSN EN 659+A1:2008.

**Notificată Corp:**

**institut pentru Testare și Certificare ca, NB 1023**

Tř. T. Bati 299,  
764 21 Zlín – Louky,  
Republica Cehă,

efectuat cel UE Examinarea de tip (Modul B) și emis cel Examinarea UE de tip Certificat nr. 23 0006 T/NB și Raport de evaluare Ref. Nr.: 723302390/2023.

The EIP este subiect la conformitate evaluare procedură in conformitate Modul C2 sub supraveghere de Organismul Notificat Nr. 1023.

Acest Declarație de Conformitate este disponibil pe web site-ul [www.holik-international.com](http://www.holik-international.com).

Eliberat în Zlín 12, 6 ianuarie 2023

"TRADUCERA CONFIRM"



HOLÍK INTERNATIONAL s.r.o.  
ZA DVOREM 612, 763 14 ZLÍN 12  
Tel: +420 577 125 500 Fax: +420 577 125 555  
IČO: 253 22 214, DIČ: CZ25322214

.....  
Kateřina Tesaříková  
Testare și Certificare



Notified Body No. 1023  
**INSTITUTE FOR TESTING AND CERTIFICATION, Inc.**  
trida Tomase Bati 299, Louky, 763 02 Zlin, Czech Republic  
www.itczlin.cz

# EU Type-Examination Certificate

## No. 23 0006 T/NB

issued in the compliance with the Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (Module B), for personal protective equipment of category III:

### Operating Gloves for Firefighters

#### Type:

**Diamond Flexi 8111-01, Diamond Evo 8111-02, Diamond Easy 8008, Diamond Long 8111-04, Diamond Short 8111-05, Diamond Compact 8013**  
**Crystal Flexi 8110-01, Crystal Evo 8110-02, Crystal Easy 8110-03, Crystal Long 8110-04, Crystal Short 8005, Crystal Compact 8038**

#### Manufacturer:

**Holik International s.r.o.**

**Za Dvorem 612**

**763 14 Zlín 12**

**Czech Republic**

*Tax Registration No: CZ25322214*

This Certificate confirms that above referenced personal protective equipment (PPE) fulfils the essential health and safety requirements as they are stated in the Regulation (EU) 2016/425 of the European Parliament and of the Council, specified in detail in the harmonized technical standard:

**ČSN EN 659+A1:2008** (EN 659:2003+A1:2008)

and in the technical standards:

**ČSN EN ISO 21420:2021** (EN ISO 21420:2020)

The PPE is produced in compliance with the manufacturer's technical file. The detailed product descriptions, the results of technical file examination as well as the test results including their evaluation are presented in the ITC's Evaluation Report No. 723302390/2023 that is an integral part of this Certificate.

#### Condition of this certificate use and related information:

1. *It applies only to the type of the category III PPE submitted to test referenced above.*
2. *It does not imply that the Notified Body has performed any surveillance or control of PPE manufacture.*
3. *The manufacturer is obligated to assure that all PPEs of the respective type conform to type approved by this Certificate, which must be used only in conjunction with one of the conformity assessment procedures referred to in Article 19 (c) either of the following: conformity to type based on internal production control plus supervised product checks at random intervals (module C2) set out in Annex VII or conformity to type based on quality assurance of the production process (module D) set out in Annex VIII Regulation of the European Parliament and of the Council (EU) 2016/425.*
4. *The manufacturer shall inform the Notified Body of all technological changes in manufacture of the approved type and as consequence of the technical advances he shall regularly keep himself informed of any standard changes as well as modifications of testing methods conducted by Notified Body, which shall approve these changes in necessary cases by the amendment of this Certificate.*
5. *The manufacturer shall affix to each PPE of the approved type the conformity mark CE followed by Notified Body number, which approves the system of production control in accordance with Annex VII (module C2) or VIII (module D) the Regulation (EU) 2016/425 of the European Parliament and of the Council, according to the principles laid down in Regulation (EC) no. 765/2008.*

Issued in Zlin, on **6<sup>th</sup> January 2023**  
Valid until: **5<sup>th</sup> January 2028**



**Mgr. Jiří Heš**  
Representative of the Notified Body No. 1023

## EU DECLARATION OF CONFORMITY

**Manufacturer:**

**Holík International s.r.o.**

Za Dvorem 612,  
763 14, Zlín 12,  
Czech Republic

This Declaration of Conformity is issued under the sole responsibility of the manufacturer Holík International s.r.o..

**Product Identification:**

**Operating Gloves for Firefighters, types:**

Diamond Flexi 8111-01, Diamond Evo 8111-02, Diamond Easy 8111-03, Diamond Long 8111-04, Diamond Short 8008, Diamond Compact 8013  
Crystal Flexi 8110-01, Crystal Evo 8110-02, Crystal Easy 8110-03, Crystal Long 8110-04, Crystal Compact 8038, Crystal Short 8005

Operating Gloves for Firefighters, type: Crystal and Diamond comply with the basic requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and fulfil the essential health and safety requirements as they are stated in the harmonized technical standards ČSN EN 21420:2021 and ČSN EN 659+A1:2008.

**Notified Body:**

**Institute for Testing and Certification a.s., NB 1023**

Tř. T. Bati 299,  
764 21 Zlín – Louky,  
Czech Republic,

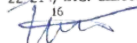
performed the EU Type-Examination (Module B) and issued the EU Type-Examination Certificate No. 23 0006 T/NB and Evaluation Report Ref. No.: 723302390/2023.

The PPE is subject to the conformity assessment procedure according Module C2 under surveillance of the Notified Body Nr. 1023.

This Declaration of Conformity is available on web site [www.holik-international.com](http://www.holik-international.com).

In Zlín 12, 6<sup>th</sup> January 2023

HOLÍK INTERNATIONAL s.r.o.  
ZA DVOREM 612, 763 14 ZLÍN 12  
Tel: +420 577 125 500 Fax: +420 577 125 555  
IČO: 253 22 214, DIČ: CZ25322214



.....  
**Kateřina Tesaříková**  
Testing and Certification



**INSTITUTE FOR TESTING AND CERTIFICATION**  
trida Tomase Bati 299, Louky, 763 02 Zlín, Czech Republic

## EVALUATION REPORT

Ref. No.: 723302390/2023

**Customer:** Holík International s.r.o.  
Za Dvorem 612  
763 14 Zlín 12  
Czech Republic

**Product:** Operating Gloves for Firefighters  
**Type:**  
Diamond Flexi 8111-01, Diamond Evo 8111-02, Diamond Easy 8008, Diamond Long 8111-04, Diamond Short 8111-05, Diamond Compact 8013  
Crystal Flexi 8110-01, Crystal Evo 8110-02, Crystal Easy 8110-03, Crystal Long 8110-04, Crystal Short 8005, Crystal Compact 8038

**Author:** Dipl. Ing. Elena Tomanová

**Issued on:** 2023-01-06



**Mgr. Jiří Heš**  
Representative of Notified Body No. 1023



## Introduction

This Evaluation Report was issued on the basis of Application No. 723302390 for the assessment of conformity of personal protective equipment (PPE) with the basic requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

This assessment should prove the fulfilment of EU legislation requirements for the purpose of the access of the assessed products to the EU market.

### 1. Identification of assessed personal protective equipment

A detailed description of the design and structure, including the drawing documentation and specifications of materials used, is given in the file of technical documentation of the product Operating Gloves for Firefighters, Type: Diamond Flexi 8111-01, Diamond Evo 8111-02, Diamond Easy 8111-03, Diamond Long 8111-04, Diamond Short 8008, Diamond Compact 8013 / Crystal Flexi 8110-01, Crystal Evo 8110-02, Crystal Easy 8110-03, Crystal Long 8110-04, Crystal Short 8005, Crystal Compact 8038.

The submitted documentation covers the following models and alternatives of the product:

Sample No. 723302390/A

#### **Operating Gloves for Firefighters**

##### **Type:**

**Diamond Flexi 8111-01, Diamond Evo 8111-02, Diamond Easy 8111-03, Diamond Long 8111-04, Diamond Short 8008, Diamond Compact 8013**

**Crystal Flexi 8110-01, Crystal Evo 8110-02, Crystal Easy 8110-03, Crystal Long 8110-04, Crystal Short 8005, Crystal Compact 8038**

In the following, the name of the product type will be used as a short form: Diamond / Crystal.

#### Material composition:

##### Palm part:

Upper material – Aramid knit with silicone coating, colour: black

Intermediate layer – Membrane Polyurethan

Lining – Aramid knit with one-sided comb, colour: yellow

Reinforcement – without reinforcement alternatively Nomex with ceramic coating

##### Back part:

Upper material – Nomex fabric, colour: blue, red, beige

Intermediate layer – Non-woven aramid textile

Intermediate layer – Membrane Polyurethan

Lining – Aramid knit with one-sided comb, colour: yellow

Reinforcement - Aramid knit with coating

*Type Crystal – reinforcement on the fingers and thumb in the knuckle area*

##### Cuff Flexi:

Face – knit 30% modified acrylic fibre type F / 30% viscose / 20% cotton / 19% polyamide / 1% antistatic fibre, colour: black

Reverse – knit 30% modified acrylic fibre type F / 30% viscose / 20% cotton / 19% polyamide / 1% antistatic fibre, colour: black



**Cuff Easy:**

Face – Nomex fabric, colour: blue, red, beige

Reverse – Cotton fabric with Proban treatment, colour: dark blue

**Cuff Evo:**

Face – Nomex fabric, colour: blue, red, beige

knit 30% modified acrylic fibre type F / 30% viscose / 20% cotton / 19% polyamide / 1% antistatic fibre, colour: black

Reverse – Aramid knit with one-sided comb, colour: yellow

knit 30% modified acrylic fibre type F / 30% viscose / 20% cotton / 19% polyamide / 1% antistatic fibre, colour: black

**Cuff Long:**

Face – Nomex fabric, colour: blue, red, beige, polyamide belt, strap with flame retardant treatment

Reverse – Cotton fabric with Proban treatment, colour: dark blue

**Cuff Short:**

Composition: Aramid knit with elastane, colour: yellow

**Cuff Compact:**

Face – Nomex fabric, colour: blue, red, beige

Aramid knit with coating

Reverse – Cotton fabric with Proban treatment, colour: dark blue

**Construction:**

These products are a five-finger glove in 3D design, with identical basic material composition. The Nomex fabric on the back is available in Nomex colour dark blue, Nomex NXT in colour beige or red. The difference between the types is the cuff design. The Flexi cuff is a combination of flame retardant materials with stable internal elastic, the Easy cuff is a basic Nomex fabric cuff with an added internal knit material barrier, and the Long cuff is a long Nomex fabric cuff. Other alternatives are the Short cuff, which is made of aramid knitted fabric, and the Compact cuff. A detailed description is given above in the material composition. The Crystal type has reinforcements on the back of the knuckles and thumb area. Individual types can also be manufactured with the option of silicone palm reinforcement and RFID chip.

**Intended use of the personal protective equipment**

Gloves are designed to protect hands against thermal and mechanical risks. They permit work in wet environments and protection against liquid chemicals. They are especially designed for routine firefighting operations for rescue and emergency firefighting forces.

**Classification of the Personal Protective Equipment**

Operating Gloves for Firefighters, Type: Diamond / Crystal where classified as PPE **Category III** by the manufacturer.

Design:

<p style="text-align: center;"><b>Crystal EASY</b></p> 	<p style="text-align: center;"><b>Diamond FLEXI</b></p> 
<p style="text-align: center;"><b>Diamond EVO</b></p> 	<p style="text-align: center;"><b>Diamond Long</b></p> 
<p style="text-align: center;"><b>Diamond Short</b></p> 	<p style="text-align: center;"><b>Diamond Compact</b></p> 



## 2. Technical documentation

Technical documentation was submitted in the Czech language to assess the conformity of - Operating Gloves for Firefighters, Type: Diamond / Crystal - in December 2022. The file of technical documentation contains the items according to Annex III of the Regulation (EU) 2016/425 of the European Parliament and of the Council.

## 3. Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment

### 3.1 *Basic requirements for the product and its specification in technical specifications*

Basic requirements are set by Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment.

Tables No. 1 through 3 state the analysis of applicability of basic requirements according to Annex II of Regulation (EU) 2016/425 in the right column, supplemented in case of applicable requirements by articles of harmonised standards stated in their harmonisation annex ZA or other technical specifications used for proving the conformity with respective partial requirement. "A" letter in the third column of the tables means that these requirements has been used for the given PPE, the "N/A" abbreviation (not applicable) means the requirement does not apply to the given PPE because it is irrelevant for the given intended use and/or the material used.

Column 4 of Tables No. 1 – 3 states the articles of harmonised standards which are linked, by means of cross links in the harmonisation annex ZA, to the respective basic requirement of Regulation (EU) 2016/425. Meeting these articles of the harmonised standard proves the conformity of the product with the given basic requirement stated in the right column.

The fifth column of Tables No. 1 – 3 states the articles of non-harmonised technical specifications by which the manufacturer proves the conformity with the respective basic requirement which is not included in harmonisation. These can be articles of non-harmonised national or international standards as well as articles of harmonised standards which are not





connected with the given requirement by a link in the harmonisation annex ZA. In extraordinary cases, the respective basic requirement can be set quite specifically by the Regulation so the conformity can be assessed directly with this article of the Regulation without any necessity to specify the required by means of a harmonised standard or other technical specification.

In case of applicable requirements, the last column of Tables No. 1– 3 states the assessment of the given requirement, whether PPE passes or does not pass. "P" letter means PPE passes the given requirement, "N/P" means it does not pass it.

*Table 1: Overview of basic requirements and technical specifications used in the PPE design. General requirements applicable to all PPE*

Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised/non-harmonised standard specifying the requirement (according to Annex ZA)	other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
1.1	Design principles	A		EN ISO 21420 art. 4.1	P
1.1.1	Ergonomics	A	EN 659+A1 art. 3.1 to 3.8	EN ISO 21420 art. 5	P
1.1.2	Levels and classes of protection	A		See requirements 1.1.2.1, 1.1.2.2 below	P
1.1.2.1	Optimum level of protection	A	EN 659+A1 art. 3.3 to 3.15, 3.18		P
1.1.2.2	Classes of protection appropriate to different levels of risks	A		EN 388+A1 art. 4	P
1.2	Innocuousness of PPE	A		See requirements 1.2.1, 1.2.1.1, 1.2.1.2 and 1.2.1.3 below	P
1.2.1	Absence of risks and other inherent nuisance factors	A	EN 659+A1 art. 3.1, 3.15		P
1.2.1.1	Suitable constituent materials	A	EN 659+A1 art. 3.1, 3.11	EN ISO 21420 art. 4.2	P
1.2.1.2	Satisfactory surface condition of all PPE parts in contact with the user	A	EN 659+A1 art. 3.1	EN ISO 21420 art. 4.2, 5	P
1.2.1.3	Maximum permissible user impediment	A	EN 659+A1 art. 3.2, 3.13, 3.15 EN ISO 21420 art. 5.2		P
1.3	Comfort and effectiveness	A		See requirements 1.3.1, 1.3.2 below	P
1.3.1	Adaptation of PPE to user morphology	A	EN 659+A1 art. 3.2	EN ISO 21420 art. 5.1	P
1.3.2	Lightness and design strength	A	EN 659+A1 art. 3.14	EN ISO 21420 art. 4.1	P
1.3.3	Compatibility of different classes or types of PPE designed for simultaneous use	N/A			
1.3.4	Protective clothing containing removable protectors	N/A			



Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised/non-harmonised standard specifying the requirement (according to Annex ZA)	other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
1.4	Manufacturer's instructions and information	A	EN 659+A1 art. 5, 6 EN ISO 21420 art. 7.3		P

*Table 2: Overview of basic requirements and technical specifications used in the PPE designing. Additional requirements common to several classes or types of PPE*

Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised/non-harmonised standard specifying the requirement (according to Annex ZA)	other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
2.1	PPE incorporating adjustment systems	A	EN 659+A1 art. 3.2		P
2.2	PPE enclosing the parts of the body to be protected	A	EN 659+A1 art. 3.1	EN ISO 21420 art. 5.3	P
2.3	PPE for the face, eyes and respiratory system	N/A			
2.4	PPE subject to ageing	A	EN 659+A1 art. 3.1		P
2.5	PPE which may be caught up during use	A	EN ISO 21420 art. 7.3.7		P
2.6	PPE for use in potentially explosive atmospheres	N/A			
2.7	PPE intended for rapid intervention or to be put on or removed rapidly	A	EN 659+A1 art. 3.15		P
2.8	PPE for intervention in very dangerous situations	A		EN 659+A1 art. 1, Annex B	P
2.9	PPE incorporating components which can be adjusted or removed by the user	N/A			
2.10	PPE for connection to complementary equipment external to the PPE	N/A			
2.11	PPE incorporating a fluid circulation system	N/A			
2.12	PPE bearing one or more identification markings or indicators directly or indirectly relating to health and safety	A	EN 659+A1 art. 5 EN ISO 21420 art. 7.2.1.1 d), 7.2.2 e), 7.3.5		P
2.13	PPE capable of signalling the user's presence visually	N/A			
2.14	'Multi-risk' PPE	A	EN 659+A1 art. 3.3 to 3.8		P



*Table 3: Overview of basic requirements and technical specifications used in the PPE designing. Additional requirements specific to particular risks*

Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised/non-harmonised standard specifying the requirement (according to Annex ZA)	other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
3.1	Protection against mechanical impact	N/A			
3.1.1	Impact caused by falling or ejected objects and collision of parts of the body with an obstacle	N/A			
3.1.2	Falls	N/A			
3.1.2.1	Prevention of falls due to slipping	N/A			
3.1.2.2	Prevention of falls from a height	N/A			
3.1.3	Mechanical vibration	N/A			
3.2	Protection against static compression of part of the body	N/A			
3.3	Protection against mechanical injuries	A	EN 659+A1 art. 3.3 to 3.6		P
3.4	Protection in liquids	N/A			
3.4.1	Prevention of drowning	N/A			
3.4.2	Buoyancy aids	N/A			
3.5	Protection against the harmful effects of noise	N/A			
3.6	Protection against heat and/or fire	A	EN 659+A1 art. 3.7 to 3.12		P
3.6.1	PPE constituent materials and other components	A	EN 659+A1 art. 3.7, 3.8, 3.9		P
3.6.2	Complete PPE ready for use	A	EN 659+A1 art. 3.18		P
3.7	Protection against cold	N/A			
3.7.1	PPE constituent materials and other components	N/A			
3.7.2	Complete PPE ready for use	N/A			
3.8	Protection against electric shock	N/A			
3.8.1	Insulating equipment	N/A			
3.8.2	Conductive equipment	N/A			
3.9	Radiation protection	N/A			
3.9.1	Non-ionising radiation	N/A			
3.9.2	Ionising radiation	N/A			
3.9.2.1	Protection against external radioactive contamination	N/A			
3.9.2.2	Protection against external irradiation	N/A			
3.10	Protection against substances and mixtures which are hazardous to health and against harmful biological agents	N/A			
3.10.1	Respiratory protection	N/A			
3.10.2	Protection against cutaneous and ocular contact	N/A			
3.11	Diving equipment	N/A			



When designing the product, the manufacturer applied the following standard harmonised to Regulation (EU) 2016/425:

**ČSN EN 659+A1:2008/Correction 1:2009 (EN 659:2003+A1:2008/AC:2009-06)**  
Protective gloves for firefighters

and non-harmonised standard:

**ČSN EN ISO 21420:2021 (EN ISO 21420:2020)**  
Protective gloves - General requirements and test methods

### **3.2 Indicators specifying basic requirements and test methods**

Indicators specifying applicable basic requirements (marked with "A" in the third column of Tables No. 1 through 3):

- general requirement
  - innocuousness, design, ergonomics, comfort and construction
  - pH value
  - azo dyes
  - sizes
  - dexterity
  - dimethylformamide (DMFa)
  - time for the removal of gloves
- mechanical risks
  - abrasion resistance
  - blade cut resistance
  - tear strength
  - puncture resistance
  - TDM: cut resistance
- thermal risks
  - burning behaviour
  - convective heat resistance
  - radiant heat resistance
  - contact heat resistance
  - heat resistance of the lining material
  - heat shrinkage
- chemical risks
  - resistance to liquid chemical penetration
- marking, information for use



**3.3 Test methods**

Table No. 4: Overview of test methods used for evaluating the materials

Properties – materials	Test method
Design, ergonomics, comfort and construction	Visual assessment / Wearing test
Innocuousness – general	Visual assessment / Declaration about Innocuousness issued by the manufacturer
pH value	EN ISO 3071:2020
Azo dyes	EN ISO 17234-1:2021, EN ISO 17234-2:2011, LC-MS according ZP (internal method) ITC A-12-104
Dimethylformamide (DMFa)	IZP A-14-109
Sizes	ČSN EN ISO 21420:2020, art. 6.1, Annex B, minimum length according ČSN EN 659+A1:2008, art. 3.2
Dexterity	ČSN EN ISO 21420:2020, art. 6.2
Time for the removal of gloves	ISO 15383:2001 (without the use of pressure 3,5 kPa)
Abrasion resistance	ČSN EN 388+A1:2019, art. 6.1
Blade cut resistance	ČSN EN 388+A1:2019, art. 6.2
Tear resistance	ČSN EN 388+A1:2019, art. 6.4
Puncture resistance	ČSN EN 388+A1:2019, art. 6.5
TDM: cut resistance	ČSN EN ISO 13997:1999
Burning behaviour	ČSN EN 407 ed.2, art. 6.2, EN ISO 15025:2016, method A (apply the flame for: 15 s)
Convective heat resistance	EN ISO 9151:2016, method B
Radiation heat resistance	EN ISO 6942:2002, method B, heat flux $Q_0 = 40 \text{ kW/m}^2$
Contact heat resistance	EN ISO 12127-1:2015, contact heat 250 °C
Heat resistance of the lining material	ČSN ISO 17493:2016, minimum temperature 180 °C
Heat shrinkage	ISO 17493:2016, at temperature 180°C
Seam strength	EN ISO 13935-2:2014
Integrity test	ISO 15383:2001
Resistance to penetration of liquid chemicals	ČSN EN ISO 6530 temperature 20 °C, time 10 s <ul style="list-style-type: none"> <li>- 30 % H<sub>2</sub>SO<sub>4</sub></li> <li>- 40 % NaOH</li> <li>- 36 % HCl</li> <li>- heptane</li> </ul>
Marking	Visual assessment
Information for use	Visual assessment

Notes:

All tests were performed in new condition (original) and after pre-treatment with 40 cycles of washing according to EN ISO 6330 procedure 6N/A except for the Short and Compact cuffs, which were tested only in new condition (original).



### 3.4 Place and scope of sampling

Samples of the assessed product were delivered by the Customer on 2022-12-12 in compliance with instructions of the designated worker of the Notified Body NB 1023. The samples were delivered at the quantity of 38 pairs of gloves. With regard to the fact that this is the EU type examination by a notified body, the Customer asking for assessing the conformity is responsible for selecting a sample (or prototype). The test examination does not include inspection activity focused on the conformity of properties of all products introduced to the market with the assessed (proto)type.

### 3.5 Place of performing the tests and assessment

Tests were performed in the accredited testing laboratory Institute for testing and certification, Zlín, Czech Republic; AITEX Textile Research Institute, Alcoy, Spain; IFTH, Lyon, France.

The documentation was examined and visual inspection and product type assessment were performed in Institute for testing and certification.

### 3.6 Results of tests and assessment

Results of the personal protective equipment evaluation are summarised in Table No. 5. Test methods stated in respective part of Tables No. 4 were used.

Table 5: Results of evaluation of the Operating Gloves for Firefighters, Type: Diamond / Crystal

Essential property	Measuring unit	Requirement	Assessment / Document No.
<b>Design, ergonomics, comfort and construction</b>	-	art. 4.1, 5 ČSN EN ISO 21420	<b>pass / D1</b>
<b>Innocuousness – general</b>	-	art. 4.2 ČSN EN ISO 21420	<b>pass / D2</b>
<b>pH value</b>			<b>pass / D3, D4, D12, D13, D25, D26</b>
- lining			6,86
- cotton fabric with Proban treatment			6,96
- Nomex fabric colour blue	-	art. 4.2 ČSN EN ISO 21420 > 3,5 < 9,5	5,20
- PU membrane			6,55
- cuff knit Short			5,78
- aramide knit with coating			7,09
- cuff knit Flexi			5,78
<b>Azo dyes</b>			<b>pass / D6, D7, D8, D27</b>
- lining			undetectable
- cuff knit Short			undetectable
- Nomex fabric colour blue, red, beige	mg/kg	art. 4.2 ČSN EN ISO 21420 undetectable	undetectable
- cotton fabric with Proban treatment			undetectable
- cuff knit Flexi			undetectable



*Table 5 – continues from the page 11: Results of evaluation of the Operating Gloves for Firefighters, Type: Diamond / Crystal*

Essential property	Measuring unit	Requirement	Assessment / Document No.
<b>Dimethylformamide (DMFa)</b> - aramide knit with coating - PU membrane	mg/kg	art. 4.2 ČSN EN ISO 21420 < 1000 mg/kg	<b>pass / D13</b> < 5 mg/kg < 5 mg/kg
<b>Sizes</b>			<b>pass / D1</b>
- glove circumference <b>Diamond Flexi</b> Size 6 Size 7 Size 8 Size 9 Size 10 Size 11 Size 12 Size 13	mm	-	<i>original / after washing</i> - / 224 242 / 240 254 / 252 - / 270 - / 280 - / 290 - / 306 326 / 320
- glove length <b>Diamond Flexi</b> Size 6 Size 7 Size 8 Size 9 Size 10 Size 11 Size 12 Size 13	mm	art. 3.2 ČSN EN 659+A1 Table 1 minimum dimension size 6 > 260 size 7 > 270 size 8 > 280 size 9 > 290 size 10 > 305 size 11 > 315 - -	<i>original / after washing</i> - / 260 289 / 275 306 / 286 - / 300 - / 305 - / 315 - / 317 350 / 320
- glove circumference <b>Diamond Evo</b> Size 6 Size 8 Size 9 Size 10 Size 11 Size 12 Size 13	mm	-	<i>original / after washing</i> - / 230 266 / 254 - / 270 276 / 278 - / 288 - / 306 320 / 310
- glove length <b>Diamond Evo</b> Size 6 Size 8 Size 9 Size 10 Size 11 Size 12 Size 13	mm	art. 3.2 ČSN EN 659+A1 Table 1 minimum dimension size 6 > 260 size 8 > 280 size 9 > 290 size 10 > 305 size 11 > 315 - -	<i>original / after washing</i> - / 265 310 / 290 - / 299 305 / 305 - / 315 - / 317 355 / 325



*Table 5 – continues from the page 12: Results of evaluation of the Operating Gloves for Firefighters, Type: Diamond / Crystal*

Essential property	Measuring unit	Requirement	Assessment / Document No.
<b>Sizes</b>			<b>pass / D1</b>
- glove circumference <b>Diamond Easy</b>			<i>original / after washing</i>
Size 6	mm	-	- / 226
Size 8			254 / 250
Size 9			- / 262
Size 10			- / 280
Size 12			- / 300
Size 13			324 / 310
- glove length <b>Diamond Easy</b>			
Size 6	mm	art. 3.2 ČSN EN 659+A1 Table 1 minimum dimension size 6 > 260 size 8 > 280 size 9 > 290 size 10 > 305	- / 260
Size 8			293 / 280
Size 9			- / 290
Size 10			- / 305
Size 12			- / 315
Size 13			350 / 320
Size 13			
<b>Sizes</b>			<b>pass / D1</b>
- glove circumference <b>Diamond Long</b>			<i>original / after washing</i>
Size 6	mm	-	232 / -
Size 8			252 / -
Size 9			- / 262
Size 11			292 / 290
Size 12			306 / -
Size 13			- / 316
- glove length <b>Diamond Long</b>			
Size 6	mm	art. 3.2 ČSN EN 659+A1 Table 1 minimum dimension size 6 > 260 size 8 > 280 size 9 > 290 size 11 > 315	333 / -
Size 8			350 / -
Size 9			- / 347
Size 11			365 / 360
Size 12			375 / -
Size 13			- / 381
Size 13			





Table 5 – continues from the page 13: Results of evaluation of the Operating Gloves for Firefighters, Type: Diamond / Crystal

Essential property	Measuring unit	Requirement	Assessment / Document No.
<b>Sizes</b>			<b>pass / D1</b>
- glove circumference <b>Diamond Short</b> Size 9 Size 10	mm	-	original / after washing  258 / - 280 / -
- glove length <b>Diamond Short</b>  Size 9 Size 10	mm	art. 3.2 ČSN EN 659+A1 Table 1 minimum dimension size 9 > 290 size 10 > 305	original / after washing  295 / - 314 / -
<b>Sizes</b>			<b>pass / D1</b>
- glove circumference <b>Diamond Compact</b> Size 9	mm	-	original / after washing  266 / -
- glove length <b>Diamond Compact</b>  Size 9	mm	art. 3.2 ČSN EN 659+A1 Table 1 minimum dimension size 9 > 290	original / after washing  309 / -
<b>Sizes</b>			<b>pass / D1</b>
- glove circumference <b>Crystal Short</b> Size 9 Size 10	mm	-	original / after washing  268 / - 270 / -
- glove length <b>Crystal Short</b>  Size 9 Size 10	mm	art. 3.2 ČSN EN 659+A1 Table 1 minimum dimension size 9 > 290 size 10 > 305	original / after washing  305 / - 320 / -
<b>Sizes</b>			<b>pass / D1</b>
- glove circumference <b>Crystal Compact</b> Size 9 Size 10	mm	-	original / after washing  276 / - 280 / -
- glove length <b>Crystal Compact</b>  Size 9 Size 10	mm	art. 3.2 ČSN EN 659+A1 Table 1 minimum dimension size 9 > 290 size 10 > 305	original / after washing  322 / - 322 / -



*Table 5 – continues from the page 14: Results of evaluation of the Operating Gloves for Firefighters, Type: Diamond / Crystal*

Essential property	Measuring unit	Requirement	Assessment / Document No.
<b>Dexterity</b> - the smallest diameter of the pin for which the test conditions are met	mm	art. 3.13 ČSN EN 659+A1  <b>Level 5:</b> min. 5	<b>pass / D9</b> original / after washing 5 / 5
<b>Abrasion resistance</b> palm part	the number of cycles to throughout	art. 3.3 ČSN EN 659+A1 min. level 3 <b>Level 4:</b> ≥ 8000	<b>pass / D9, D10</b> original / after washing > 8000 / > 8000
<b>Blade cut resistance</b> - Index palm part	-	art. 3.4 ČSN EN 659+A1 min. level 2 <b>Level 5:</b> ≥ 20	<b>pass / D10, D25</b> original / after washing 63,0 / - *)
<b>Blade cut resistance</b> - Index back part	-	art. 3.4 ČSN EN 659+A1 min. level 2 Level 4: ≥ 10 < 20 <b>Level 3:</b> ≥ 5 < 10	<b>pass / D9, D10</b> original / after washing 13,2 / 8,24
<b>Tear resistance</b> palm part	N	art. 3.5 ČSN EN 659+A1 min. level 3 Level 4: > 75 <b>Level 3:</b> ≥ 50 < 75	<b>pass / D9, D10</b> original / after washing 118,0 / 57,0
<b>Puncture resistance</b> palm part	N	art. 3.6 ČSN EN 659+A1 min. level 3 <b>Level 3:</b> ≥ 100 < 150	<b>pass / D9, D10</b> original / after washing 108,0 / 108,1
<b>TDM: cut resistance</b> palm part	N	art. 4.1 ČSN EN 388+A1 <b>Level E:</b> ≥ 22 < 30	<b>pass / D11</b> after washing 22
<b>Burning behaviour</b> gloves - after-flame time - after-glow time	s	art. 3.7 ČSN EN 659+A1 min. level 4 ≤ 2,0 ≤ 5,0 <b>Level 4</b>	<b>pass / D9, D14</b> original / after washing 0 / 0 0 / 0
- burning behaviour	-	Surface of the innermost layer of the glove shall be inspected; it shall show no sign of melting. No hole shall appear on all layers of the tested area. The seam shall not come apart after the ignition time. If the outermost layer melts, the material shall not produce molten or flaming debris.	without damage
<b>Convective heat resistance</b> HTI <sub>24</sub> palm part	s	art. 3.8 ČSN EN 659+A1 min. level 3: HTI <sub>24</sub> ≥ 13 <b>Level 4:</b> HTI <sub>24</sub> ≥ 18	<b>pass / D15, D23</b> original / after washing 19,7 / 19,4
<b>Convective heat resistance</b> HTI <sub>24</sub> back part	s	art. 3.8 ČSN EN 659+A1 min. level 3: HTI <sub>24</sub> ≥ 13 <b>Level 4:</b> HTI <sub>24</sub> ≥ 18	<b>pass / D15, D23</b> original / after washing 24,5 / 21,1



*Table 5 – continues from the page 15: Results of evaluation of the Operating Gloves for Firefighters, Type: Diamond / Crystal*

Essential property	Measuring unit	Requirement	Assessment / Document No.
<b>Radiant heat resistance RHTI<sub>24</sub></b> <i>back part</i> <i>time RHTI<sub>24</sub> – average value</i> <i>time RHTI<sub>24</sub> – minimum value</i>	s	art. 3.9 ČSN EN 659+A1  min. 20 min. 18	<b>pass / D9, D17</b> <i>original / after washing</i> 29 / 27 29 / 26
<b>Contact heat resistance t<sub>t</sub></b>  after dry conditioning after wet conditioning	s	art. 3.10 ČSN EN 659+A1  ≥ 10	<b>pass / D15, D16, D28</b> <i>original / after washing</i> 23,4 / 21,4 15,9 / 14,3
<b>Heat resistance of the lining material</b> <i>aramid knit with one-sided comb</i>	-	art. 3.11 ČSN EN 659+A1  the lining materials shall neither melt not drip, not catch fire	<b>pass / D9, D18</b> <i>original / after washing</i> they do not melt, drip, catch fire
<b>Heat shrinkage behaviour during the test</b>  <b>Diamond Short</b> <b>Diamond Compact</b> <b>Diamond Evo</b> <b>Diamond Flexi</b> <b>Diamond Easy</b> <b>Diamond Long</b>	-	art. 3.12 ČSN EN 659+A1  after the test and 25 flex cycles shall be gloves without damage	<b>pass / D9, D18, D19</b> <i>original / after washing</i>  without damage / - without damage / - without damage / without damage without damage / without damage without damage / without damage without damage / without damage
<b>Heat shrinkage change of width and length</b>  <b>Diamond Short</b> <b>Diamond Compact</b> <b>Diamond Evo</b> <b>Diamond Flexi</b> <b>Diamond Easy</b> <b>Diamond Long</b>	%	art. 3.12 ČSN EN 659+A1  max. 5	<b>pass / D9, D18, D19</b> <i>original / after washing</i>  0 / - 0 / - 0 / 0 0 / 0 0 / 0 0 / 0
<b>Seam breaking strength</b>  <i>Nomex + Nomex</i> <i>Nomex + aramid knit with silicone coating</i> <i>aramid knit with silicone coating + aramid knit with silicone coating</i>	N	art. 3.14 ČSN EN 659+A1  min. 350	<b>pass / D5, D9, D19</b> <i>original / after washing</i> 505 / 354 495 / 433  635 / 638

*Table 5 – continues from the page 16: Results of evaluation of the Operating Gloves for Firefighters, Type: Diamond / Crystal*

Essential property	Measuring unit	Requirement	Assessment / Document No.
<b>Time for the removal of gloves after dry conditioning</b> Diamond Short Diamond Compact Diamond Evo Diamond Flexi Diamond Easy Diamond Long	s	art. 3.15 ČSN EN 659+A1 max. 3	<b>pass / D9, D22, D24</b> <i>original / after washing</i> 1,5 / - 2,0 / - 0,9 / 1,6 0,9 / 1,7 0,7 / 1,4 2,0 / 1,8
<b>Time for the removal of gloves after wet conditioning</b> Diamond Short Diamond Compact Diamond Evo Diamond Flexi Diamond Easy Diamond Long	s	art. 3.15 ČSN EN 659+A1 max. 3	<b>pass / D9, D22, D24</b> <i>original / after washing</i> 2,5 / - 2,0 / - 1,3 / 1,5 1,1 / 1,6 1,3 / 1,0 2,0 / 1,2
<b>Whole glove integrity test</b>	-	art. 3.17 ČSN EN 659+A1 when tested accordingly, there shall be no penetration	<b>pass / D9, D20</b> <i>original / after washing</i> no penetration
<b>Resistance to liquid chemical penetration</b> <i>PU membrane</i> 30 % H <sub>2</sub> SO <sub>4</sub> 40 % NaOH 36 % HCl heptane	-	art. 3.18 ČSN EN 659+A1  when tested accordingly, there shall be no penetration	<b>pass / D9, D21</b> <i>original / after washing</i> no penetration no penetration no penetration no penetration
<b>Marking</b>	-	art. 7 ČSN EN ISO 21420 art. 5 ČSN EN 659+A1	<b>pass / D1</b>
<b>Instruction for users</b>	-	art. 7 ČSN EN ISO 21420 art. 6 ČSN EN 659+A1	<b>pass / D1</b>

*\*) according to the requirements of ČSN EN 388+A1, article 6.2 Blade cut resistance, the number of cycles  $C_{n+1}$  was three times greater than  $C_n$  on one of the tested samples. For this reason, the reference method for cut resistance according to EN ISO 13997:1999, article 6.3 TDM: cut resistance after pre-treatment by washing was used.*

The bases for the evaluations stated in Table No. 5 are test results specified in the following documents:

D1: Record of assessment No. 723302390 issued by Institute for testing and certification, Zlín, Czech Republic on 2022-12-20

D2: Declaration about Innocuousness issued by Holík International s.r.o. on 2022-12-13



- D3: Test Report of accredited laboratory Ref. No. 412602684/5 issued by Institute for Testing and Certification, Zlín on 2018-04-13
- D4: Test Report of accredited laboratory Ref. No. 412602684/4 issued by Institute for Testing and Certification, Zlín on 2018-04-13
- D5: Test Report of accredited laboratory Ref. No. 353301919-01 issued by Institute for Testing and Certification, Zlín on 2022-10-17
- D6: Test Report of accredited laboratory Ref. No. 412603143-10 issued by Institute for Testing and Certification, Zlín on 2020-11-27
- D7: Certificate Oeko-Tex No. 20210K1778 issued by AITEX Textile Research Institute, Alcoy, Spain on 2021-09-01
- D8: Certificate Oeko-Tex No. CQ 920/5 issued by IFTH, Lyon, France on 2022-03-03
- D9: Test Report of accredited laboratory Ref. No. 353301917-01 issued by Institute for Testing and Certification, Zlín on 2022-12-07
- D10: Test Report of accredited laboratory Ref. No. 412603418-01 issued by Institute for Testing and Certification, Zlín on 2022-05-10
- D11: Test Report of accredited laboratory Ref. No. 353301917-03 issued by Institute for Testing and Certification, Zlín on 2022-11-09
- D12: Test Report of accredited laboratory Ref. No. 353301919-02 issued by Institute for Testing and Certification, Zlín on 2022-10-12
- D13: Test Report of accredited laboratory Ref. No. 412603178-03 issued by Institute for Testing and Certification, Zlín on 2021-01-26
- D14: Test Report No. 343300237/2021 issued by Institute for Testing and Certification, Zlín on 2021-05-14
- D15: Test Report of accredited laboratory Ref. No. 353301917-02 issued by Institute for Testing and Certification, Zlín on 2022-11-07
- D16: Test Report of accredited laboratory Ref. No. 412603418-02 issued by Institute for Testing and Certification, Zlín on 2022-05-18
- D17: Test Report No. 098/2022 issued by VÚBP, Prague on 2022-05-13
- D18: Test Report of accredited laboratory Ref. No. 412602721/3 issued by Institute for Testing and Certification, Zlín on 2018-06-08
- D19: Test Report of accredited laboratory Ref. No. 353301914-01 issued by Institute for Testing and Certification, Zlín on 2022-10-21
- D20: Test Report of accredited laboratory Ref. No. 412602702/6 issued by Institute for Testing and Certification, Zlín on 2018-03-17
- D21: Test Report of accredited laboratory Ref. No. 412603305-01 issued by Institute for Testing and Certification, Zlín on 2021-10-25
- D22: Test Report of accredited laboratory Ref. No. 412601553/6 issued by Institute for Testing and Certification, Zlín on 2013-04-19
- D23: Test Report of accredited laboratory Ref. No. 412601914-02 issued by Institute for Testing and Certification, Zlín on 2022-10-11



- D24: Test Report No. 723302390-02 issued by Institute for Testing and Certification, Zlín on 2022-12-22
- D25: Test Report of accredited laboratory Ref. No. 723302390-02 issued by Institute for Testing and Certification, Zlín on 2023-01-05
- D26: Test Report of accredited laboratory Ref. No. 353301919-03 issued by Institute for Testing and Certification, Zlín on 2022-10-12
- D27: Certificate Oeko-Tex No. 2008AN2098 issued by AITEX Textile Research Institute, Alcoy, Spain on 2022-06-27
- D28: Test Report of accredited laboratory Ref. No. 723302390-01 issued by Institute for Testing and Certification, Zlín on 2022-12-23

### **3.7 Assessment of product conformity with technical specifications and basic requirements**

The assessed product – Operating Gloves for Firefighters, Type: Diamond / Crystal - specified in Item 1 hereof – complies with the requirements set by the following technical standards with regard to its design and submitted documentation:

**ČSN EN 659+A1:2008/Correction 1:2009 (EN 659:2003+A1:2008/AC:2009-06)**

Protective gloves for firefighters

and non-harmonised standard:

**ČSN EN ISO 21420:2021 (EN ISO 21420:2020)**

Protective gloves - General requirements and test methods

Results of the evaluation of the personal protective equipment stated in Table No. 5 hereof prove the conformity of all indicators specifying general basic requirements of Regulation (EU) 2016/425, additional basic requirements common for more types of PPE and additional basic requirements for special risks applicable to the evaluated type of product.

## **4. Conclusion**

Notified Body NB 1023 performed EU Type-Examination of the personal protective equipment

### **Operating Gloves for Firefighters,**

**Type: Diamond Flexi 8111-01, Diamond Evo 8111-02, Diamond Easy 8111-03, Diamond Long 8111-04, Diamond Short 8008, Diamond Compact 8013**

**Crystal Flexi 8110-01, Crystal Evo 8110-02, Crystal Easy 8110-03, Crystal Long 8110-04, Crystal Short 8005, Crystal Compact 8038.**

Technical specifications used by the manufacturer are in compliance with basic requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.



The sample of the personal protective equipment was produced in compliance with the technical documentation of the manufacturer and can be fully safely used for its intended purpose.

The sample of the personal protective equipment meets all the provisions of the Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

Notified Body NB 1023 decided to issue the EU Type-Examination Certificate No. 22 0605 T/NB.

#### **5. List of documents used for the preparation of the Evaluation Report**

- Application for the EU Type - Examination issued by Holík International s.r.o. on 2022-12-13
- Technical documentation issued by Holík International s.r.o. in December 2022
- Check list issued by Holík International s.r.o. on 2022-12-29
- Record of assessment No. 723302390 issued by Institute for testing and certification, Zlín, Czech Republic on 2022-12-20
- Declaration about Innocuousness issued by Holík International s.r.o. on 2022-12-13
- Test Report of accredited laboratory Ref. No. 412602684/5 issued by Institute for Testing and Certification, Zlín on 2018-04-13
- Test Report of accredited laboratory Ref. No. 412602684/4 issued by Institute for Testing and Certification, Zlín on 2018-04-13
- Test Report of accredited laboratory Ref. No. 353301919-01 issued by Institute for Testing and Certification, Zlín on 2022-10-17
- Test Report of accredited laboratory Ref. No. 412603143-10 issued by Institute for Testing and Certification, Zlín on 2020-11-27
- Certificate Oeko-Tex No. 20210K1778 issued by AITEX Textile Research Institute, Alcoy, Spain on 2021-09-01
- Certificate Oeko-Tex No. CQ 920/5 issued by IFTH, Lyon, France on 2022-03-03
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- Test Report of accredited laboratory Ref. No. 412603178-03 issued by Institute for Testing and Certification, Zlín on 2021-01-26
- Test Report No. 343300237/2021 issued by Institute for Testing and Certification, Zlín on 2021-05-14
- Test Report of accredited laboratory Ref. No. 353301917-02 issued by Institute for Testing and Certification, Zlín on 2022-11-07



- Test Report of accredited laboratory Ref. No. 412603418-02 issued by Institute for Testing and Certification, Zlín on 2022-05-18
- Test Report No. 098/2022 issued by VÚBP, Prague on 2022-05-13
- Test Report of accredited laboratory Ref. No. 412602721/3 issued by Institute for Testing and Certification, Zlín on 2018-06-08
- Test Report of accredited laboratory Ref. No. 353301914-01 issued by Institute for Testing and Certification, Zlín on 2022-10-21
- Test Report of accredited laboratory Ref. No. 412602702/6 issued by Institute for Testing and Certification, Zlín on 2018-03-17
- Test Report of accredited laboratory Ref. No. 412603305-01 issued by Institute for Testing and Certification, Zlín on 2021-10-25
- Test Report of accredited laboratory Ref. No. 412601553/6 issued by Institute for Testing and Certification, Zlín on 2013-04-19
- Test Report of accredited laboratory Ref. No. 412601914-02 issued by Institute for Testing and Certification, Zlín on 2022-10-11
- Test Report No. 723302390-02 issued by Institute for Testing and Certification, Zlín on 2022-12-22
- Test Report of accredited laboratory Ref. No. 723302390-02 issued by Institute for Testing and Certification, Zlín on 2023-01-05
- Test Report of accredited laboratory Ref. No. 353301919-02 issued by Institute for Testing and Certification, Zlín on 2022-10-12
- Certificate Oeko-Tex No. 2008AN2098 issued by AITEX Textile Research Institute, Alcoy, Spain on 2022-06-27
- Test Report of accredited laboratory Ref. No. 723302390-01 issued by Institute for Testing and Certification, Zlín on 2022-12-23