



TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

Markanın Tanımı Description of the Mark
TSE veya or TSE veya or TSE

BELGE NUMARASI 030701-TSE-01/04
REFERENCE NUMBER OF LICENCE

BELGENİN İLK VERİLİŞ TARİHİ 08.09.2015
DATE OF FIRST ISSUE OF LICENCE

BELGENİN SON GEÇERLİLİK TARİHİ 08.09.2023
LICENCE VALID UNTIL

BELGE SAHİBİ KURULUŞUN ADI BAYTEKS TEKNİK TEKSTİL SANAYİ VE TİCARET ANONİM
NAME OF THE LICENCE HOLDER ŞİRKETİ

BELGE SAHİBİ KURULUŞUN ADRESİ BAŞPINAR(ORGANİZE)OSB MAH. O.S.B. 4.BÖLGE 83404 NOLU CAD.
ADDRESS OF THE LICENCE HOLDER NO:15 /0 ŞEHİTKAMİL GAZİANTEP/TÜRKİYE

ÜRETİM YERİ ADI BAYTEKS TEKNİK TEKSTİL SANAYİ VE TİCARET ANONİM ŞİRKETİ
NAME OF THE MANUFACTURING PLACE

ÜRETİM YERİ ADRESİ ORGANİZE SAN. BÖL. 19 NOLU CAD.NO:9 KİLİS / TÜRKİYE
ADDRESS OF THE MANUFACTURING PLACE

İPTAL EDİLEN BELGE NUMARASI (Varsa) 030701-TSE-01/03
INDICATION OF SUPERSEDED LICENCE (if any)

TESCİLLİ TİCARİ MARKASI BAYMED
REGISTERED TRADE MARK

İLGİLİ TÜRK STANDARDI TS. EN 13795-1 / 30.09.2019
RELATED TURKISH STANDARD

BELGE KAPSAMI
SCOPE OF LICENCE

Cerrahi önlükler, standard performans, tek kullanımlık
Cerrahi örtüler, standard performans, tek kullanımlık

e-imzalı/e-signed

06.09.2022

Belgelendirme Merkezi Başkanı Adına
HÜSAMETTİN ERBİLGİN

GAZİANTEP BELGELENDİRME MÜDÜR V.

*Bu belge, belgelendirilen ürünün, üretim yerinin Enstitümüzün belirlediği şartları karşıladığını da gösterir.

*Bu belge, hiç bir suretle tahrif edilemez, kısmen veya okunmasını zorlaştıracak şekilde çoğaltılamaz, kopya ve silinti yapılamaz.

*TSE GAZİANTEP BELGELENDİRME MÜDÜRLÜĞÜ * Adres: 2.Organize Sanayi Bölgesi Hacı Sani Konukoglu Bulvarı No:9 Başpınar 27120 Şehitkamil GAZİANTEP * Telefon: 0 342 337 95 03 (Pbx) * Faks: 0 342 337 95 08

*TSE BELGELENDİRME MERKEZ BAŞKANLIĞI: Adres: Necatibey Cad. No:112 06100 Bakanlıklar/ANKARA – Telefon: 0 312 416 64 81 / 416 64 27, Faks:0 312 416 66 17 E-posta :bmb@tse.org.tr , web : www.tse.org.tr





EKOTEKS

**EKOTEKS LABORATUVAR ve GÖZETİM
HİZMETLERİ A.Ş.**

Esenyurt Firuzköy Bulvarı No:29 34325 Avcılar
İstanbul/ TÜRKİYE



Test
TS EN ISO/IEC 17025
AB-0583-T

TEST REPORT
DENEY RAPORU

AB-0583-T

20035727
-ing

10-20

Customer name: BAYTEKS TEKNİK TEKSTİL SAN. VE TİC. A.Ş.
Address: -
Buyer name: ORGANİZE SAN. MAH. 19 NOLU CAD. NO:11 MERKEZ /KİLİS
Contact Person: KADİR KARAGÜN
Order No: REF:SG-01222-05 LOT:50815
Article No: PROTECTED SURGICAL APRON
Name and identity of test item: Coated medical blue surgical gown.
The date of receipt of test item: 29.09.2020
Re-submitted/re-confirmation date: -
Date of test: 29.09.2020-12.10.2020
Remarks: -
Sampling: The results given in this report belong to the received sample by vendor.
End-Use: -
Care Label: Not specified.
Number of pages of the report: 7

The Turkish Accreditation Agency (TÜRKAK) is signatory to the multilateral agreements of the European co-operation for the Accreditation (EA) and of the International Laboratory Accreditation (ILAC) for the Mutual recognition of test reports.

EKOTEKS LABORATUVAR ve GÖZETİM HİZMETLERİ A.Ş. accredited by TÜRKAK under registration number [AB-0583-T] for ISO 17025:2017 as test laboratory.

The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

Seal

Date
12.10.2020

Customer Representative
Hatice ACARALP

Head of Testing Laboratory
Sevim A. RAZAK
12.10.2020

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Testing reports without signature and seal are not valid.

**EKOTEKS LABORATUVAR ve GÖZETİM
HİZMETLERİ A.Ş.**

AB-0583-T
20035727 -ing
10-20

REQUIRED TESTS	RESULT	COMMENTS
PHYSICAL PROPERTIES		
Tensile Strength / Dry	P	
Tensile Strength / Wet	P	
Bursting Strength / Dry	P	
Bursting Strength / Wet	P	
Water Permeability	P	
MICROBIOLOGICAL TESTS		
Microbial Cleanliness (Bioburden)	P	
Wet-Bacterial Penetration	P	
Dry-Bacterial Penetration	P	
P: Pass F: Fail R: Refer to retailer technologist. (1)Test results were evaluated according to EN 13795-1:2019 Standard Performance Properties Critical Sample Group limit values (Table 1)		

REMARK: Original samples are kept for 3 months and all technical records are kept for 5 years unless otherwise specified.If requested, measurement uncertainty will be reported. But unless otherwise specified, measurement uncertainty is not considered while stating compliance with specification or limit values The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. Tests marked (*) in this report are not included in the accreditation schedule.



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**EKOTEKS LABORATUVAR ve GÖZETİM
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AB-0583-T
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10-20

TEST RESULTS

TENSILE STRENGTH; EN 29073-3:1996

Instron 5969 (Load: 50 kN), Strip Method.
Speed: 100 mm/min \pm 10, Gauge length 200 mm.
Pre-load was not applied. Without wetting samples.
The average results are given for weft and warp direction of five samples
Performed in the conditioned room (20 \pm 2°C-65% \pm 4).

Dry ;

	<u>RESULT</u>	<u>REQUIREMENT</u>
Weft	72.5 N	\geq 20N (Dry)
Warp	162.8 N	\geq 20N (Dry)

TENSILE STRENGTH; EN 29073-3:1996

Instron 5969 (Load: 50 kN), Strip Method.
Speed: 100 mm/min \pm 10, Gauge length 200 mm.
Pre-load was not applied. With wetting samples.
The average results are given for weft and warp direction of five samples
Performed in the conditioned room (20 \pm 2°C-65% \pm 4).

Wet ;

	<u>RESULT</u>	<u>REQUIREMENT</u>
Weft	75.1 N	\geq 20N (Wet)
Warp	160.1 N	\geq 20N (Wet)

BURSTING STRENGTH;; ISO 13938-1:1999

SDL ATLAS M229 tester. Test area: 30.5 mm diameter
Rate of increase in volume; 29 cm³/min.
The average results are given of five samples.
Performed in the conditioned room (20 \pm 2°C-65% \pm 4).

	<u>RESULT</u>	<u>REQUIREMENT</u>
Dry ;	201.4 kPa	\geq 40 kPa (Dry)
Height at Burst*	14.9 mm	

**EKOTEKS LABORATUVAR ve GÖZETİM
HİZMETLERİ A.Ş.**

AB-0583-T
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TEST RESULTS

TEST METHOD: EN 13795-1: 2019

SURGICAL CLOTHING AND DRAPES –REQUIREMENTS AND TEST METHODS

ANNEX 1: SURGICAL CLOTHING AND DRAPES ;

BURSTING STRENGTH; ISO 13938-1:1999

SDL ATLAS M229 tester. Test area: 30.5 mm diameter

Rate of increase in volume; 45.2 cm³/min.

The average results are given of five samples.

Performed in the conditioned room (20±2°C-65%±4).

	<u>RESULT</u>	<u>REQUIREMENT</u>
Wet ;	190.2 kPa	≥ 40 kPa (Wet)
Height at Burst*	13.8 mm	

WATER PERMEABILITY; ISO 811:2018

Hydrostatic Head Tester, Textest marka Fx 3000 model

Temperature of water 20°C. Pressure increase ratio 10 mbar/min.

Performed in the conditioned room (20±2°C-65%±4)

	<u>RESULT</u>	<u>REQUIREMENT</u>
Sample 1	147.0 cmSS	≥ 100cmSS
Sample 2	150.0 cmSS	
Sample 3	157.2 cmSS	
Sample 4	163.3 cmSS	
Sample 5	160.1 cmSS	
Average	158.6 cmSS	

**EKOTEKS LABORATUVAR ve GÖZETİM
HİZMETLERİ A.Ş.**

AB-0583-T
20035727 -ing
10-20

TEST RESULTS

TEST METHOD : EN 13795-1:2019

SURGICAL CLOTHING AND DRAPES –REQUIREMENTS AND TEST METHODS

ANNEX 1: SURGICAL CLOTHING AND DRAPES (*);

MICROBIAL CLEANLINESS (Bioburden)

Test Metod: Ref: EN ISO 11737-1:2018 (*)

The sample is put in extraciton liquid after shaking well, inoculated on the agar.
After incubation at 30 ± 1 ° C for 72 hours, growth microorganisms are counted on the agar.

	<u>RESULTS</u>	<u>REQUIREMENT</u>
Microbial cleanliness (cfu/g)	32 cfu/g	≤ 300 cfu/g Type I and Type II mask

**EKOTEKS LABORATUVAR ve GÖZETİM
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AB-0583-T

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10-20

TEST RESULT

Test Method: BS EN 22610: 2006 (Surgical drapes, garments and fresh air clothes used as medical devices for patients, hospital staff and equipment - Test method for determination of resistance to wet bacterial permeability) (*)

A test sample is placed on the agar plate on a rotating disc. Bacteria carrier material and coating film are placed on the test sample and all parts are fixed on the disk. A finger is placed on the test sample to apply a certain force ($3N \pm 0.02$). The finger moves on the test sample over the entire surface of the agar within 15 minutes. 5 studies are carried out for 15 minutes. 6. The study is repeated by inverting the sample.

Sample amount:	5 pieces 25x25cm2
Carrier Material:	30 µm thin, 25x25cm2 Polyurethane Film
Coating Material:	25x25cm2 HDPE Film
Microorganism:	Staphylococcus aureus ATCC 29213
Bacterial Concentration (kob / ml):	2x104 kob / ml
Incubation Conditions:	(36 ± 1) ° C 48 hours

RESULTS			
Number of Populating Bacteria (cfu)		Penetration Rate	
X ₁	0	R _{CUM1}	0
X ₂	0	R _{CUM2}	0
X ₃	0	R _{CUM3}	0
X ₄	0	R _{CUM4}	0
X ₅	0	R _{CUM5}	0
Z	459		
T	459		
<i>X1 X5: Number of colonies growing in 5 parallel petri in the same sample</i> <i>Z: number of colonies growing in the sixth petri dish</i> <i>T: X₁ + X₂ + X₃ + X₄ + X₅ + Z</i>			
<i>R_{CUM1} = X1/T</i> <i>R_{CUM2} = (X2 + X1)/T</i> <i>R_{CUM3} = (X3 + X2 + X1)/T</i> <i>R_{CUM4} = (X4 + X3 + X2 + X1)/T</i> <i>R_{CUM5} = (X5 + X4 + X3 + X2 + X1)/T</i>			
BARRIER INDEX (I _B)			
	Result	Expected value (*)	
I _B	6	≥2,8	
<i>I_B = 6 – (CUM1 + CUM2 + CUM3 + CUM4 + CUM5)</i>			
<i>* EN 13795-1:2019 Surgical gowns and drapes - Requirements and test methods are evaluated according to Table-1.</i>			

**EKOTEKS LABORATUVAR ve GÖZETİM
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AB-0583-T
20035727 -ing
10-20

Test Method: ISO 22612: 2005 (Clothing for protection against infectious agents - Test method for resistance to dry microbial penetration)

Samples and containers are sterilized. Agar plates are placed in each container. Samples are placed aseptically in the apparatus. The covers are closed. After making a pot in the sample with the piston, the pistons are removed and 0.5 g \pm 0.1 g are added to five samples from the powder contaminated with bacteria and the six to the non-contaminated powder. Then all openings are closed with a plastic bag. The device is operated to give 20,800 vibrations per minute. The test time is 30 minutes. After the test is over, all agar plates are incubated at 35 ° C for 24 hours.

Sample amount:	6 pieces 20x20 cm ²
Mikroorganism:	<i>Bacillus subtilis</i> ATCC 9372
Bacterial concentration (cfu/ml):	1x10 ⁸
Incubation conditions:	35°C / 24 hours
RESULTS	
Number of Populationg Bacteria (cfu)	
1	1
2	2
3	1
4	3
5	2
6 (Control)	0
Total	9
Logarithm	0.95
* EN 13795-1:2019 Surgical gowns and drapes - Requirements and test methods are evaluated according to Table-1.	
RESULT	
Result (cfu/g)	Expected Value
9 kob/gr	≤ 300 kob/gr



DATE	19.03.2021
DOC.NO	F32
PAGE NO	1
REV.NO	0

TECHNICAL DATA SHEET

Product : Polypropylene

Product Description	: ENDLESS FILAMENTS MELTBLOWN , THERMALLY BONDED.
Raw Material	: 100 % PP
Application on Fabric	: SMS/HYDROPHOBIC
Treatment	:
Fabric Colour	: MEDICAL BLUE
Customer Name	:
Weight	: 43 GSM
Width	:
Packing	: PE BAG WITH LABEL

PROPERTIES	TEST METHOD	UNIT	TARGET
WEIGHT	NWSP 130.1.R0 (15)	gsm	43
THICKNESS	NWSP 120.1.R0 (15)	mm	0,33
TENSILE STRENGTH	MD	N/5 cm	115,0
	CD		55,0
ELONGATION AT BREAK	MD	%	145,0
	CD		133,0
HYDROSTATIC HEAD	NWSP 080.6.R0(15)	mm	430,0
AIR PERMEABILITY	NWSP 070.1.R0 (15)	l/m ² /s(200 pa)	
ABSORPTION	WATER	H ₂ O/cm ²	150,0

Tolerances For The Avarage Results

Weight	± 5 %	Roll Tolerance Length : - 0 / +5% against target / ordered lenght Width : Up to 150 cm in width = -0mm/+5mm Over 150 cm in width = - 0mm/+10 Splice : Maxium five splices per roll
Thickness	± 10 %	
Tensile Strenght	± 15 %	
Elongation	± 15 %	
Hydrostatic Head	± 15 %	
Air Permeability	± 20 %	
Absorption	± 5 H ₂ O/cm ²	



CERTIFICATE

BAYTEKS TEKNİK TEKSTİL SANAYİ VE TİCARET A.Ş.

ORGANİZE SANAYİ BÖLGESİ 19 NOLU CAD. NO: 11 MERKEZ - KİLİS - TÜRKİYE

TEK KULLANIMLIK STERİL VE NON-STERİL CERRAHİ ÖNLÜKLERİ, ÖRTÜLERİ VE SET
ÜRETİMİ, DEPOLAMASI, DAĞITIMI VE SATIŞI

kapsamında

EN ISO 13485:2016

Uluslararası Tıbbi Cihazlar Kalite Yönetim Sistemi Standardına uygun bir yönetim
sistemi kurmuştur.

"Standardın aşağıda verilen maddeleri hariç tutulmuştur"

"7.5.3" "7.5.4" "7.5.9.2"

Sertifika No	: M 10892
İlk Belgelendirme Tarihi	: 12 Ocak 2018
Sertifika Tarihi	: 01 Şubat 2021
Son Geçerlilik Tarihi	: 31 Ocak 2024

Kiwa Belgelendirme Hizmetleri A.Ş.
İTOSB 9. Cadde No: 15 Tepeören Tuzla
İstanbul / Türkiye

Tel: + 90 216 593 25 75
Faks: + 90 216 593 25 74
info@kiwa.com.tr
www.kiwa.com.tr

Sertifikalar periyodik ara denetimlerin
başarılı ile tamamlanması kaydıyla
geçerlidir. Detaylı bilgi için yukarıdaki
numaralara başvurulabilir.

Genel Müdür



Sertifika Son Güncelleme Tarihi : 01 Şubat 2021 - R 02

BAYTEKS TEKNİK TEKSTİL SANAYİ VE TİCARET A.Ş.

ORGANİZE SANAYİ BÖLGESİ 19 NOLU CAD. NO: 11 MERKEZ - KİLİS - TURKEY

**PRODUCTION, STORAGE, DISTRIBUTION AND SALES OF DISPOSABLE STERILE
AND NON STERILE SURGICAL GOWNS, DRAPES AND SETS**

with a scope of

EN ISO 13485:2016

Has established a management system in accordance
with international Medical Devices Quality Management System Standard

"Following elements of the standard are excluded"

"7.5.3" "7.5.4" "7.5.9.2"

Certificate No	: M 10892
Initial Certification Date	: 12 January 2018
Certification Date	: 01 February 2021
Expiration Date	: 31 January 2024

Kiwa Belgelendirme Hizmetleri A.Ş.
İTOSB 9. Cadde No. 15 Tepeören Tuzla
İstanbul / Turkey

Tel: + 90 216 593 25 75
Faks: + 90 216 593 25 74
info@kiwa.com.tr
www.kiwa.com.tr

Certificate is valid till expiration date,
subject to successful completion of
periodical surveillance audits.
Please contact above numbers for
detailed information.



General Manager





**EKOTEKS LABORATUVAR ve GÖZETİM
HİZMETLERİ A.Ş.**

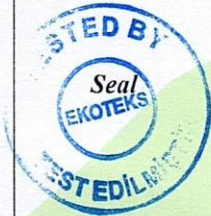
Esenyurt Firuzköy Bulvarı No:29 34325 Avcılar
İstanbul/ TÜRKİYE

TEST REPORT
DENEY RAPORU

21001832

01-21

Customer name: BAYTEKS TEKNİK TEKSTİL SAN. TİC. AŞ.
Address: ORGANİZE SANAYİ BÖLGESİ 19 NO'LU CADDE NO:11
MERKEZ/KİLİS
Buyer name: -
Contact Person: KADİR KARAGÜN
Order No: REF:SG-01222-05/LOT:50815
Article No: PROTECTED SURGICAL GOWN
Name and identity of test item: Blue non-woven gown. (Claimed to be;MEDICAL BLUE)
The date of receipt of test item: 18.01.2021
Re-submitted/re-confirmation date: -
Date of test: 18.01.2021-25.01.2021
Remarks: -
Sampling: The results given in this report belong to the received sample by vendor.
End-Use: -
Care Label: Not Specified
Number of pages of the report: 3



Date
25.01.2021

Customer Representative
Yeşim ŞAHİN

Head of Testing Laboratory
Sevim A. RAZAK
25.01.2021

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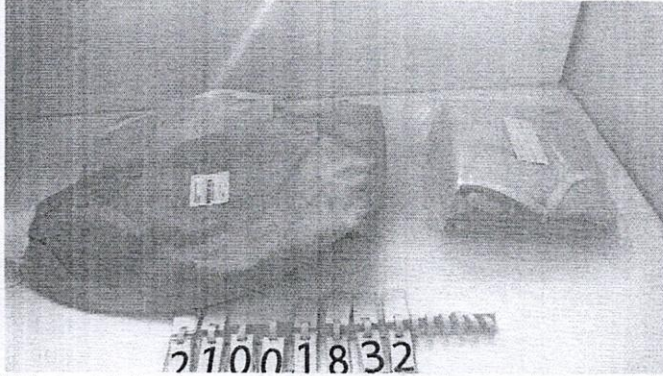
**EKOTEKS LABORATUVAR ve GÖZETİM
HİZMETLERİ A.Ş.**

21001832

01-21

REQUIRED TESTS	RESULT	COMMENTS
PHYSICAL PROPERTIES TESTS		
Lint and Other Particles Generation From Nonwoven	P	
P: Pass F: Fail R: Refer to retailer technologist. Test results were evaluated according to EN 13795-1:2019 Standard Performance Properties Critical Sample Group limit values (Table 1)		

REMARK: Original samples are kept for 3 months and all technical records are kept for 5 years unless otherwise specified. If requested, measurement uncertainty will be reported. But unless otherwise specified, measurement uncertainty is not considered while stating compliance with specification or limit values. The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95 %. The declaration of conformity was given in accordance with the Simple Acceptance Decision Rule. Tests marked (*) in this report are not included in the accreditation schedule.



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Gen.fl136-2/03

TEST RESULTS

LINT AND OTHER PARTICLES GENERATION FROM NONWOWEN;

Test Metod: ISO 9073-10: 2003 (*)

5 test samples that in cross direction are maintained to twisting and compression action with Gelbo Flex for inner and outer surface in a clean room condition (according to ISO 14644-1 Class 5).

Lint and particles detached from the sample are counted with counter device and classified to size range.

Min. measuring size of SOLAIR 3100 particles measuring device: 0,3 µm.

Max. measuring size of SOLAIR 3100 particles measuring device: 25 µm.

Air flow: 28,3 ± 1,4 L/min

Working mode: 30 s x 10 consecutive periods

SAMPLE, INNER SURFACE (3 µm - 25 µm)		SAMPLE, OUTER SURFACE (3 µm - 25 µm)	
Total linting	: 23	Total linting	: 16
Standard deviation	: 4	Standard deviation	: 7
Coefficient of variation	: 18%	Coefficient of variation	: 46%
Coefficient of linting (CL)	: 1	Coefficient of linting (CL)	: 1
SAMPLE, MATERIAL (TOTAL)			
Total linting	: 39		
Coefficient of linting (CL)*	: 2		

*According to EN ISO EN ISO 13795-1:2019, Coefficient of linting (CL) (log 10) should be ≤4 for analysis of critical product area and less critical product area of both standard performance and high performance testing.



CERTIFICATE

EC Certificate

Production Quality Assurance System according to Medical Devices Directive 93/42/EEC Annex-V

Certificate Number: 1984-MDD-18-479

We hereby declare that an examination has been carried out following the requirements of the national legislation to which the undersigned is subject, transposing Annex-V of the Directive 93/42/EEC on medical devices. We certify that the production quality system conforms with the relevant provisions of the aforementioned legislation.

Organization:

**BAYTEKS TEKNİK TEKSTİL
SANAYİ VE TİCARET ANONİM ŞİRKETİ**

Organize Sanayi Bölgesi 19 nolu Cad. No:9 Merkez / Kilis - Turkey

Products: Sterile Disposable Surgical Gown, Sterile Disposable Surgical Drapes, Sterile Disposable Surgical Packs

The certificate is valid till expiration date, subject to successful completion of periodical surveillance audits. Please contact Kiwa for details.

Report Number: M.5035.03
Date of first issue: 12 January 2018
Date of last issue: 16 September 2020
Revision Number: 03
Expiry Date: 27 May 2024

Kiwa Belgelendirme Hizmetleri A.Ş. has audited the quality system restricted to the aspects of manufacture concerned with securing and maintaining sterile conditions in accordance with MDD Annex V and found that the quality system meets the applicable requirements in MDD Annex V.

Kiwa Belgelendirme Hizmetleri A.Ş. is Notified Body under Council Directive 93/42/EEC concerning medical devices with identification number: 1984

Muhteşem Gökhan Yücel
Head of Notified Body

16 September 2020, Istanbul, Turkey

AB-0583-T

21012425-
ing

04-21

Customer name:

BAYTEKS TEKNİK TEKSTİL SAN. VE TİC. A.Ş.

Address:

ORGANİZE SANAYİ BÖLG.19 NO'LU CAD.NO:11 MERKEZ/KİLİS

Buyer name:

-

Contact Person:

KADİR KARAGÜN

Order No:

REF:SD-04210-18/LOT:0000016139

Article No:

REINFORCED SURGICAL CLOTH(HIGH PERFORMANCE)

Name and identity of test item:

One sample blue surgical gown.(Claimed to be;4 Pieces Color;Medikal Blue)

The date of receipt of test item:

12.04.2021

Re-submitted/re-confirmation
date:

-

Date of test:

12.04.2021-26.04.2021

Remarks:

Sampling:

End-Use:

Care Label:

The results given in this report belong to the received sample by vendor.

Number of pages of the report: 9

The Turkish Accreditation Agency (TURKAK) is signatory to the multilateral agreements of the European co-operation for the Accreditation (EA) and of the International Laboratory Accreditation (ILAC) for the Mutual recognition of test reports.

EKOTEKS LABORATUVAR ve GÖZETİM HİZMETLERİ A.Ş. accredited by TÜRKAK under registration number [AB-0583-T] for ISO 17025:2017 as test laboratory.

The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.



Date
26.04.2021

Customer Representative
Yeşim ŞAHİN

Head of Testing Laboratory
Sevim A. RAZAK
26.04.2021

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**EKOTEKS LABORATUVAR ve GÖZETİM
HİZMETLERİ A.Ş**

AB-0583-T

21012425-
ing

04-21

REQUIRED TESTS	RESULT	COMMENTS
MICROBIOLOGICAL TEST		
Microbial Cleanliness (Bioburden)	P	
Resistance to Bacterial Penetration-Wet Method	P	
Resistance to Microbial Penetration-Dry Method	P	
PHYSICAL PROPERTIES TESTS		
Tensile Stregth / Dry	P	
Tensile Stregth / Wet	P	
Bursting Strength / Dry	P	
Bursting Strength / Wet	P	
Water Permeability	P	
Blood Splash Resistance	P	
Lint And Other Particles Generation From Nonwoven	P	
P: Pass F: Fail R: Refer to retailer technologist. Test results were evaluated according to EN 13795-1:2019(*) High Performance Properties Critical Sample Group limit values (Table 1)		

REMARK: Original samples are kept for 3 months and all technical records are kept for 5 years unless otherwise specified.If requested, measurement uncertainty will be reported. But unless otherwise specified, measurement uncertainty is not considered while stating compliance with specification or limit values The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The declaration of conformity was given in accordance with the Simple Acceptance Decision Rule. Tests marked (*) in this report are not included in the accreditation schedule



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TEST RESULTS

MICROBIAL CLEANLINESS (Bioburden) ; EN ISO 11737-1:2018

The sample is put in extraciton liquid after shaking well after shaking well (250 rpm,5 min), inoculated on the suitable agar.The plates are incubated for 3 days at 30 ± 1 ° C for 72 hours, and 7 days at (20 to 25) °C for TSA and SDA plates respectively.
Total microoragnisms counts are calculated.

	<u>RESULTS</u>	<u>REQUIREMENT</u>
Microbial cleanliness (cfu/100 cm²)	7 cfu/100 cm ²	≤300 cfu/100 cm ²

*cfu= Colony forming unit.

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TEST RESULTS

RESISTANCE TO BACTERIAL PENETRATION-WET METHOD ; BS EN ISO 22610: 2006

A test sample is placed on the agar plate on a rotating disc. Bacteria carrier material and coating film are placed on the test sample and all parts are fixed on the disk. A finger is placed on the test sample to apply a certain force ($3N \pm 0.02$). The finger moves on the test sample over the entire surface of the agar within 15 minutes. 5 studies are carried out for 15 minutes. 6. The study is repeated by inverting the sample.

Sample amount:	5 pieces 25x25cm2
Carrier Material:	30 µm thin, 25x25cm2 Polyurethane Film
Coating Material:	25x25cm2 HDPE Film
Microorganism:	Staphylococcus aureus ATCC 29213
Bacterial Concentration (kob / ml):	5×10^3 kob/ml
Incubation Conditions:	(36 ± 1) ° C 48 hours

RESULTS			
Number of Populating Bacteria (cfu)		Penetration Rate	
X ₁	0	RCUM1	0
X ₂	0	RCUM2	0
X ₃	0	RCUM3	0
X ₄	0	RCUM4	0
X ₅	0	RCUM5	0
Z	462		
T		462	
X ₁ X ₅ : Number of colonies growing in 5 parallel petri in the same sample Z: number of colonies growing in the sixth petri dish T: X ₁ + X ₂ + X ₃ + X ₄ + X ₅ + Z			
RCUM1 = X ₁ /T RCUM2 = (X ₂ + X ₁)/T RCUM3 = (X ₃ + X ₂ + X ₁)/T RCUM4 = (X ₄ + X ₃ + X ₂ + X ₁)/T RCUM5 = (X ₅ + X ₄ + X ₃ + X ₂ + X ₁)/T			
BARRIER INDEX (I _B)			
	Result	Expected value (*)	
I _B	6	≥6	
I _B = 6 - (CUM1 + CUM2 + CUM3 + CUM4 + CUM5)			

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TEST RESULTS

RESISTANCE TO MICROBIAL PENETRATION-DRY METHOD; ISO 22612:2005

Samples and containers are sterilized. Agar plates are placed in each container. Samples are placed aseptically in the apparatus. The covers are closed. After making a pot in the sample with the piston, the pistons are removed and $0.5 \text{ g} \pm 0.1 \text{ g}$ are added to five samples from the powder contaminated with bacteria and the six to the non-contaminated powder. Then all openings are closed with a plastic bag. The device is operated to give 20,800 vibrations per minute. The test time is 30 minutes. After the test is over, all agar plates are incubated at 35°C for 24 hours.

Sample amount: 6 pieces $20 \times 20 \text{ cm}^2$
Mikroorganism: *Bacillus subtilis* ATCC 9372
Bacterial concentration (cfu/ml): $1 \times 10^8 \text{ kob/ml}$
Incubation conditions: $35^\circ \text{C} / 24 \text{ hours}$

RESULTS

Number of Populationg Bacteria (cfu)

1	0
2	0
3	0
4	0
5	0
6 (Control)	0
Total	0
Logarithm	-

RESULT

Result (cfu/g)
0 cfu/g

Expected Value
 $\leq 300 \text{ cfu/g}$

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TEST RESULTS

TENSILE STRENGTH; EN 29073-3:1996

Instron 5969 (Load: 5 kN), Strip Method.

Speed: 100 mm/min \pm 10, Gauge length 200 mm.

Pre-load was not applied. Without wetting samples.

The average results are given for width and length direction of three samples

Performed in the conditioned room (20 \pm 2°C-65% \pm 4).

Dry ;

	<u>RESULT</u>	<u>REQUIREMENT</u>
Width	151.1 N	\geq 20N (Dry)
Length	149.9 N	\geq 20N (Dry)

TENSILE STRENGTH; EN 29073-3:1996

Instron 5969 (Load: 5 kN), Strip Method.

Speed: 100 mm/min \pm 10, Gauge length 200 mm.

Pre-load was not applied. Without wetting samples.

The average results are given for width and length direction of three samples

Performed in the conditioned room (20 \pm 2°C-65% \pm 4).

Wet;

	<u>RESULT</u>	<u>REQUIREMENT</u>
Width	149.3 N	\geq 20N (Wet)
Length	154.6 N	\geq 20N (Wet)

BURSTING STRENGTH;; ISO 13938-1:1999

SDL ATLAS M229 tester. Test area: 30.5 mm diameter

The average results are given of 3 samples.

Performed in the conditioned room (20 \pm 2°C-65% \pm 4).

	<u>RESULT</u>	<u>REQUIREMENT</u>
Dry ;	310.6 kPa	\geq 40 kPa (Dry)
Height at Burst*	10.4 mm	

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TEST RESULTS

BURSTING STRENGTH;; ISO 13938-1:1999

SDL ATLAS M229 tester. Test area: 30.5 mm diameter
The average results are given of 3 samples.
Performed in the conditioned room ($20\pm 2^{\circ}\text{C}$ - $65\%\pm 4$).

	<u>RESULT</u>	<u>REQUIREMENT</u>
Wet ;	332.0 kPa	$\geq 40 \text{ kPa (Wet)}$
Height at Burst*	12.4 mm	

WATER PERMEABILITY; ISO 811:2018

Hydrostatic Head Tester, Textest marka Fx 3000 model
Temperature of water 20°C . Pressure increase ratio 10 mbar/min.
Performed in the conditioned room ($20\pm 2^{\circ}\text{C}$ - $65\%\pm 4$)

	<u>RESULT</u>	<u>REQUIREMENT</u>
Sample 1	555.9 cm H ₂ O	$\geq 100 \text{ cm H}_2\text{O}$
Sample 2	587.5 cm H ₂ O	
Sample 3	562.0 cm H ₂ O	
Sample 4	560.0 cm H ₂ O	
Sample 5	578.3 cm H ₂ O	
Average	568.7 cm H ₂ O	

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TEST RESULTS

DETERMINATION OF THE RESISTANCE TO PENETRATION BY BLOOD AND BODY FLUIDS-USING SYNTHETIC BLOOD; ISO 16603:2004

Textest, FX 3000-IV model + External Blood Cell

Test samples were conditioned at $60 \pm 10\%$ relative humidity and $21 \pm 5^\circ \text{C}$ for at least 24 hours before testing.

Test Procedure Applied:

A procedure

B procedure (Only extensible or elastomeric materials)

Pressure (kPa)	Time (Min.)	Test Result			Overall Result
		Test 1	Test 2	Test 3	
0	5	PASS	PASS	PASS	PASS
14	1	PASS	PASS	PASS	
0	4	PASS	PASS	PASS	
The time of failure (sn)		-	-	-	
Thickness of material tested (mm):		0.61	0.61	0.61	
Weight of material tested (g/m^2) :		0.88	0.88	0.88	

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TEST RESULTS

LINT AND OTHER PARTICLES GENERATION FROM NONWOVEN; ISO 9073-10: 2003

5 samples in longitudinal direction (separate for inner and outer surface) are tested. The samples are placed in the Gelbo Flex device, which makes twisting and compression movements, in a clean room in Class 5 category according to ISO 14644-1. Lint and particles detached from the sample are counted with counter device and classified to size range.

SOLAIR 3100 particles measuring device

Min. measuring size: 0,3 µm,

Maks. measuring size: 25 µm

Air Flow: : 28,3 ± 1,4 L/dk

Working mode: 30 sec x 10 consecutive periods

<u>SAMPLE (INNER SURFACE)</u>		<u>SAMPLE (OUTER SURFACE)</u>	
Total linting :	86	Total linting :	26
Standard deviation :	50	Standard deviation :	20
Coefficient of variation :	%58	Coefficient of variation :	%78
Coefficient of linting (CL):	2	Coefficient of linting (CL):	1
<u>SAMPLE (TOTAL)</u>			
Total linting :	112		
Coefficient of linting (CL)*	2		

* According to EN ISO EN ISO 13795-1:2019, Coefficient of linting (CL) (log 10) should be ≤4 for analysis of critical product area and less critical product area of both standard performance and high performance testing.

Certificate

Standard **ISO 14001:2015**

Certificate Registr. No. **01 104 2115858**

Certificate Holder: **BAYTEKS TEKNİK TEKSTİL SANAYİ VE TİCARET A.Ş.**
ORGANİZE SANAYİ BÖLGESİ 19 NO'LU CAD. NO:9
79000 MERKEZ / KİLİS
Turkey

Scope: Non-woven fabric production, storage, marketing and sales

Proof has been furnished by means of an audit that the requirements of ISO 14001:2015 are met.

Validity: The certificate is valid from 2021-08-23 until 2024-08-22.
First certification 2021

2021-08-23


TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln



AB-0494-T

MT20210576

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**TÜBİTAK
BURSA TEST AND ANALYSIS LABORATORY**

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TEST REPORT

Customer Name/Address : TÜRK STANDARTLARI ENSTİTÜSÜ GAZİANTEP BELGELENDİRME
MÜDÜRLÜĞÜ / 2. Organize Sanayi Bölgesi Hacı Sani Konukkoğlu Bulvarı No:
9 / Başpınar / GAZİANTEP

T/F: (342) 337-95-03 / (342) 337-95-08

Order Date/No : 24/02/2021 Tarihli ve 2137871 Sayılı Yazı

Sample Description : Inspection Number: 2137871 2 m2 Surgical Gown Fabric (Bayteks Tekstil)

Sample Receipt Date : 12/04/2021

Sample Delivered by: Cargo Delivery

Number of Pages: 2

Remarks : Sampling and identification of the sample was done by the customer. By the request of the customer, Turkish version of the same date and numbered report was also created.

*TÜBİTAK Bursa Test and Analysis Laboratory accredited by TÜRKAK under registration number AB-0494-T for General Requirements for the Competence of Testing and Calibration Laboratories TS EN ISO/IEC 17025 as test laboratory.

*Test results, methods measurement uncertainty (if applicable, given in 95% confidence interval) and other information are given on the following pages which are part of this report.

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*In case of sampling by customer the results in this report refer only to samples tested

*In case of sampling by customer, the sampling uncertainty were not included to the uncertainty budget.

*Test marked with (A) refers the test within the scope of TS EN ISO / IEC 17025 accreditation and marked with (D) refers the test provided by external sources.

*Testing reports without e-signature are not valid.

Turkish Accreditation Agency (TURKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.

Date
14/04/2021

e-signature

Anıl ÇETİNOĞLU

Person in Charge of Laboratories

e-signature

Sedat AKTAŞ

Director

This document has been signed by e-signature.

The document can be verified via the link " <https://butalonlinetest.tubitak.gov.tr/butalOnline> " using the code "NW33423789'03B"

Test Date : 12- 14/ 04/ 2021

Sample Description : Inspection Number:2137871 2 m2 Surgical Gown Fabric (Bayteks Tekstil)

Test Name and Test Method	Test Result		
		<u>Dry Sample</u>	<u>Wet Sample</u>
Bursting Strength (A) EN ISO 13938-1	Bursting Strength	146 kPa	137 kPa
	CV(%)	% 5,1	% 7,3
	Bursting Height	14 mm	14 mm
	CV(%)	% 1,4	% 2,9
	Bursting Time	19,7 s	19,9 s
	CV(%)	% 3,2	% 3,2
Test Conditions a) Version of applied standard: EN ISO 13938-1: 2019 b) Applied method: Hydraulic Diaphragm Method c) Test Device: SDL Autoburst d) Test Diameter: 30,5 mm, Test Area: 7,3 cm ² e) Number of Test specimen: 5 f) Test conditions according to ISO 139 (20±2°C, %65±4 Relative Humidity)			
Note Before wet tests, the test pieces were immersed in 1 liter distilled water for one hour.			