

ANALYSIS REPORT

Report No. : **2013952E** Report Date : 15/07/2020

Applicant : UNIVERSAL SERT F KASYON VE GÖZET M H ZMETLER T CARET LTD. T .

Address : Necip Fazıl Bulvarı Keyap Sitesi E2 Blok No:44/84 Yukarı Dudullu
Ümraniye/ stanbul/Turkey

Sample : Overalls

Sample Package : Poly packing

Sample Amount : 3 pieces

Sampling Point : -

Sampling Date : 22/06/2020

Sample Lot No. : -

Sample Carrying Conditions / Preservation : -
Technique

Production Date : -

Packing Date : -

Expire Date : -

Producer Company : Narkoteks Tekstil hracat thalat Sanayi ve Tic. A. .

Sample Receiving Time : 22/06/2020 13:00:00

Analysis Beginning Time : 23/06/2020 10:00:00

Analysis Completion Time : 14/07/2020

Following analysis results were obtained from the specimen which was delivered to Çevre Laboratory by hand to hand

Parameters	Unit	Finding	Method	Information
Sentetik Kanın Nüfuzuna Karşı Direnç				
The Average Thickness of the Material Tested	mm	0,2	ISO 16603	148
The Average Mass of the Material Tested	g	0,285	ISO 16603	148
Test Spicemen 1: 0 kPa	-	Succeed	ISO 16603	149
Test Spicemen 1: 1,75 kPa	-	Succeed	ISO 16603	149
Test Spicemen 1: 3,5 kPa	-	Succeed	ISO 16603	149
Test Spicemen 1: 7 kPa	-	Succeed	ISO 16603	149
Test Spicemen 1: 14 kPa	-	Succeed	ISO 16603	149
Test Spicemen 1: 20 kPa	-	Succeed	ISO 16603	149
Test Spicemen 2: 0 kPa	-	Succeed	ISO 16603	149
Test Spicemen 2: 1,75 kPa	-	Succeed	ISO 16603	149



Merve B RAH
Assistant Laboratory Responsible of
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15/07/2020
Ömer Yasin BALIK
Laboratory Manager

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Parameters	Unit	Finding	Method	Information
Test Spicemen 2: 3,5 kPa	-	Succeed	ISO 16603	149
Test Spicemen 2: 7 kPa	-	Succeed	ISO 16603	149
Test Spicemen 2: 14 kPa	-	Succeed	ISO 16603	149
Test Spicemen 2: 20 kPa	-	Succeed	ISO 16603	149
Test Spicemen 3: 0 kPa	-	Succeed	ISO 16603	149
Test Spicemen 3: 1,75 kPa	-	Succeed	ISO 16603	149
Test Spicemen 3: 3,5 kPa	-	Succeed	ISO 16603	149
Test Spicemen 3: 7 kPa	-	Succeed	ISO 16603	149
Test Spicemen 3: 14 kPa	-	Succeed	ISO 16603	149
Test Spicemen 3: 20 kPa	-	Succeed	ISO 16603	149
The Procedure Selected	-	D	ISO 16603	
Microbial Penetration - Dry Bacterium				
Microbial Penetration - Dry Bacterium	log cfu	<1	ISO 22612	150, 151
Test Spicemen 1 - Colony Count	cfu	<1	-	
Test Spicemen 2 - Colony Count	cfu	<1	-	
Test Spicemen 3 - Colony Count	cfu	<1	-	
Test Spicemen 4 - Colony Count	cfu	<1	-	
Test Spicemen 5 - Colony Count	cfu	<1	-	
Test Spicemen 6 - Colony Count	cfu	<1	-	
Test Spicemen 7 - Colony Count	cfu	<1	-	
Test Spicemen 8 - Colony Count	cfu	<1	-	
Test Spicemen 9 - Colony Count	cfu	<1	-	
Test Spicemen 10 - Colony Count	cfu	<1	-	
Ortalama Koloni Sayısı	cfu	<1	-	
Negative Control Count 1	cfu	<1	-	
Negative Control Count 2	cfu	<1	-	
Talc Concentration	cfu/g	4,9*10 ⁴	ISO 22612	
Pathogen Penetration				
The Procedure Selected	-	D	ISO 16604	155



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Parameters	Unit	Finding	Method	Information
Hydrostatic Pressure	kPa	20	ISO 16604	156
Test Spicemen 1	-	Succeed	ISO 16604	157
Test Spicemen 2	-	Succeed	ISO 16604	157
Test Spicemen 3	-	Succeed	ISO 16604	157
Pre-test Bacteriophage Titer	pfu/mL	4,8*10 ⁸	ISO 16604	
Post-test Bacteriophage Titer	pfu/mL	4,4*10 ⁸	ISO 16604	
Negative Control	-	Succeed	ISO 16604	
Positive Control	-	Fail	ISO 16604	
Microbial Penetration - Wet Bacterium				
Test Spicemen 1 - Colony Count	cfu	147	ISO 22610	
Test Spicemen 2 - Colony Count	cfu	117	ISO 22610	
Test Spicemen 3 - Colony Count	cfu	141	ISO 22610	
Test Spicemen 4 - Colony Count	cfu	108	ISO 22610	
Test Spicemen 5 - Colony Count	cfu	115	ISO 22610	
Test Spicemen 1 - Barrier Index	-	3,33	ISO 22610	
Test Spicemen 2 - Barrier Index	-	3,39	ISO 22610	
Test Spicemen 3 - Barrier Index	-	3,3	ISO 22610	
Test Spicemen 4 - Barrier Index	-	3,3	ISO 22610	
Test Spicemen 5 - Barrier Index	-	3,32	ISO 22610	
Test Spicemen 1 - Percentage of Penetration	%	2,33	ISO 22610	
Test Spicemen 2 - Percentage of Penetration	%	1,86	ISO 22610	
Test Spicemen 3 - Percentage of Penetration	%	2,24	ISO 22610	
Test Spicemen 4 - Percentage of Penetration	%	1,71	ISO 22610	
Test Spicemen 5 - Percentage of Penetration	%	1,83	ISO 22610	
Average Penetration Percentage	%	1,99	ISO 22610	
Bacillus atrophaeus Concentration	spores/mL	6,3*10 ³	ISO 22610	

Source of Limit Ranges : El ve Kol Koruması ve Can Yele i Dahil Korumucu Kıyafetler (EN 14126)

A: Acceptable NA: Not Acceptable

MU: Measurement Uncertainty

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- Method** ISO : International Organization for Standardization
- Information**
- 148 : Test sample-1 is sampled from the right arm, test sample-2 left leg, test sample-3 body part. The thickness and mass given are the average of the results for these three samples.
 - 149 : The retaining screen has 50% open area
 - 150 : Test Conditions : 65±5 relative humidity and 20±2°C
ATCC 9372 Bacillus subtilis spores were used in the concentration of ethyl alcohol.
Talc concentration 10⁸ cfu/g
200 mm x 200 mm 12 test pieces used
The vibrator was operated in an air flow with a vibration frequency of 20800 per minute.
 - 151 : EN 14126 standard provides Class 3 values according to Table 4.
 - 155 : Test Conditions: Minimum 24 hours at 20±2°C and 65±5 % relative humidity
Sample size and number: 3 test samples in size 75x75mm
Name of test microorganism: ATCC 13706-B1 Escherichia coli bacteriophage Phi X174
PFU: Plate forming unit
 - 156 : The application pressure was chosen over the values obtained as a result of the procedure applied according to the ISO 16603 method.
 - 157 : Test sample-1 right arm, test sample-2 left leg, test sample-3 were sampled from the body part.
- Note**
1. When request, the conformat assessment is carried out in accordance with the legal regulations and standards or the decision rules which are agreed with the customer.
 2. Descriptive information about the samples / sampling in the analysis report has been declared by the customer. Our laboratory is not responsible for the legal losses.
 3. Analysis report covers samples/sampling that comes to the laboratory.
 4. This report and results don't not be copied and printed partially or completely without permission of Cevre Industrial Analysis Laboratory for any commercial and advertising purposes.
 5. This report shall not be used official purposes related to Enviromental Regulations.
 6. The test report without sign is not valid.

End of Report



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Microbial Penetration - Wet Bacteria Analysis Report Attachment (ISO 22610)										
Sample No:		2013952E								
Analysis Results										
	<i>Bacillus atrophaeus</i> Spore Concentration (spore/mL)	X1 (cfu)	X2 (cfu)	X3 (cfu)	X4 (cfu)	X5 (cfu)	Z (cfu)	Total Colony Count (cfu)	% Pn	
		0-15 minute	15-30 minute	30-45 minute	45-60 minute	60-75 minute				
Test Specimen - 1	6300	25	42	41	21	18	31	147	2,33	
Test Specimen - 2		18	32	33	19	15	25	117	1,86	
Test Specimen - 3		23	40	48	13	17	30	141	2,24	
Test Specimen - 4		20	31	25	20	12	22	108	1,71	
Test Specimen - 5		17	29	36	17	16	19	115	1,83	
X1: 1.plates colony count										
X2: 2.plates colony count										
X3: 3.plates colony count										
X4: 4.plates colony count										
X5: 5.plates colony count										
Z: Number of plates in the reverse test sample										
Pn: Percentage of penetration										
Total Colony Count =X1+X2+X3+X4+X5										
	T (cfu)	CUM1	CUM2	CUM3	CUM4	CUM5	Barrier Index (EPP)	Donor (cfu)	Incubator Control (cfu)	Ambient Test Control (cfu)
Test Specimen - 1	178	0,14	0,38	0,61	0,72	0,83	3,33	223	<4	<25
Test Specimen - 2	142	0,13	0,35	0,58	0,72	0,82	3,39	182	<4	<25
Test Specimen - 3	171	0,13	0,37	0,65	0,73	0,82	3,30	167	<4	<25
Test Specimen - 4	130	0,15	0,39	0,58	0,74	0,83	3,30	198	<4	<25
Test Specimen - 5	134	0,13	0,34	0,61	0,74	0,86	3,32	205	<4	<25
T = Z + X1 + X2 + X3 + X4 + X5										
CUM1 = X1/T										
CUM2 = (X2 + X1)/T										
CUM3 = (X3 + X2 + X1)/T										
CUM4 = (X4 + X3 + X2 + X1)/T										
CUM5 = (X5 + X4 + X3 + X2 + X1)/T										



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