

**MNA LABORATORIES
TEST REPORT**

Report No: M-2020-00567	Date: 09.12.2020	Page: 1 / 8	Rev:
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Purpose of Analysis	: SPECIAL REQUEST	Brand	:
Sample Type	: PROTECTIVE CLOTHING	Model	: OLEY 2311
Sample Send Org.	: OLEY TIBBİ URUNL.VE MEDİ.MLZ SAN.TİC.LTD.ŞTİ.	Sampler	: CUSTOMER
Manufacturer Name	: OLEY TIBBİ URUNL.VE MEDİ.MLZ SAN.TİC.LTD.ŞTİ.		
Analysis Date	: 27.11.2020		
Sample Quantity	: 41 pieces		
Other informations	:		

No	Tests	Results	Limit Value	Method	Evaluation	Physical Condition
1	Abrasion Resistance	10 (Cycle)	>10 Cycle	BS EN 14325 Part 4.4	PERFORMANC E LEVEL:1	
2		10 (Cycle)	>10 Cycle	BS EN 14325 Part 4.4		
3		10 (Cycle)	>10 Cycle	BS EN 14325 Part 4.4		
4		10 (Cycle)	>10 Cycle	BS EN 14325 Part 4.4		
5	Tear Resistance- Trapezoidal	41,79(Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7	PERFORMANC E LEVEL:2	
6		34,02(Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7		
7		43,10(Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7		
8		39,19(Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7		
9		44,66(Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7		
10		121,54 (Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7		
11		127,40 (Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7		
12		121,32 (Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7		
13		127,30 (Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7		
14		141,59 (Newton)	>20 N	EN ISO 9073-4+ BS EN 14325 Part 4.7		
15	Puncture Resistance	7,99(Newton)	>5 N	EN 863+ BS EN 14325 Part 4.10	PERFORMANC E LEVEL:1	
16		7,23(Newton)	>5 N	EN 863+ BS EN 14325 Part 4.10		
17		8,10(Newton)	>5 N	EN 863+ BS EN 14325 Part 4.10		

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18	Puncture Resistance	6,80 (Newton)	>5 N	EN 863+ BS EN 14325 Part 4.10	PERFORMANC E LEVEL:1	
19	Flex Cracking Resistance	500 (Cycle)	>500 Cycle	EN ISO 7854+ BS EN 14325 Part 4.5	PERFORMANC E LEVEL:1	
20	Penetration by Liquids- Sulphuric Acid	Penetration	0,8 (%)	<1 %	EN ISO 6530+ BS EN 14325 Part 4.12,13	PERFORMANC E LEVEL:3
		Repellency	97,6 (%)	>90 %	EN ISO 6530+ BS EN 14325 Part 4.12,13	
		Absorption	- (%)		EN ISO 6530+ BS EN 14325 Part 4.12,13	
21	Penetration by Liquids- Sodium Hydroxide	Penetration	0,4 (%)	<1 %	EN ISO 6530+ BS EN 14325 Part 4.12,13	PERFORMANC E LEVEL:3
		Repellency	98,8 (%)	>90 %	EN ISO 6530+ BS EN 14325 Part 4.12,13	
		Absorption	- (%)		EN ISO 6530+ BS EN 14325 Part 4.12,13	
22	Wet Bacterial Penetration(1. sample)	1. plate	3 (Colony)		ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		2. plate	5 (Colony)		ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		3. plate	6 (Colony)		ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		4. plate	4 (Colony)		ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		5. plate	3 (Colony)		ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		6. plate	- (Colony)		ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		% Penetration	0,18 (%)		ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	

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Manufacturer Name	: OLEY TIBBİ URUNL.VE MEDİ.MLZ SAN.TİC.LTD.ŞTİ.		
Analysis Date	: 27.11.2020		
Sample Quantity	: 41 pieces		
Other informations	:		

Sample No	Sample Description	Plate No	Colony Count	Standard	Result
23	Wet Bacterial Penetration(2. sample)	1. plate	3 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		2. plate	5 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		3. plate	5 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		4. plate	4 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		5. plate	3 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		6. plate	- (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		%Penetration	0,17 (%)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
24	Wet Bacterial Penetration(3. sample)	1. plate	3 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		2. plate	5 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		3. plate	4 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		4. plate	5 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		5. plate	2 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		6. plate	- (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	

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Manufacturer Name	: OLEY TIBBİ URUNL.VE MEDİ.MLZ SAN.TİC.LTD.ŞTİ.		
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Sample Quantity	: 41 pieces		
Other informations	:		

No	Sample Description	%Penetration	Colony Count	Reference Standard	Result
24	Wet Bacterial Penetration(3. sample)	%Penetration	0,16 (%)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	-
25	Wet Bacterial Penetration(4. sample)	1. plate	2 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		2. plate	4 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		3. plate	6 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		4. plate	5 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		5. plate	4 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		6. plate	-(Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		%Penetration	0,18 (%)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
26	Wet Bacterial Penetration(5. sample)	1. plate	5 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		2. plate	5 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		3. plate	2 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		4. plate	3 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	
		5. plate	5 (Colony)	ISO 22610:2018 + TS EN 14126 Part 4.1.4.2	

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26	Wet Bacterial Penetration(5. sample)	6. plate	- (Colony)		ISO 22610:2018 + TS EN 14126 Part4.1.4.2	PERFORMANC E LEVEL:1
		% Penetration	0,17 (%)		ISO 22610:2018 + TS EN 14126 Part4.1.4.2	
		Total Penetration%	0,17 (%)	≤ 15 min	ISO 22610:2018 + TS EN 14126 Part4.1.4.2	
27	Seam Strength	59,00(Newton)		>50 N	EN ISO 13935-2	PERFORMANC E LEVEL:2
28		58,05(Newton)		>50 N	EN ISO 13935-2	
29		67,12(Newton)		>50 N	EN ISO 13935-2	
30		72,56(Newton)		>50 N	EN ISO 13935-2	
31		72,96(Newton)		>50 N	EN ISO 13935-2	
32		67,91(Newton)		>50 N	EN ISO 13935-2	
33		59,38(Newton)		>50 N	EN ISO 13935-2	
34		61,83(Newton)		>50 N	EN ISO 13935-2	
35		64,34(Newton)		>50 N	EN ISO 13935-2	
36	Tensile Strength	41,78(Newton)		>30 N	ISO 13934-1	PERFORMANC E LEVEL:1
37		42,32(Newton)		>30 N	ISO 13934-1	
38		38,80(Newton)		>30 N	ISO 13934-1	
39		38,99(Newton)		>30 N	ISO 13934-1	
40		37,23(Newton)		>30 N	ISO 13934-1	

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41	Tensile Strength	119,98 (Newton)	>30 N	ISO 13934-1	PERFORMANC E LEVEL:1	
42		114,96 (Newton)	>30 N	ISO 13934-1		
43		113,45 (Newton)	>30 N	ISO 13934-1		
44		116,72 (Newton)	>30 N	ISO 13934-1		
45		129,95 (Newton)	>30 N	ISO 13934-1		
46	General Size Designation	Chest	122 (cm)	84-96 cm	EN ISO 13688	PASS
		Height	190 (cm)	158-170 cm	EN ISO 13688	
47		Chest	123 (cm)	84-96 cm	EN ISO 13688	PASS
		Height	195 (cm)	158-170 cm	EN ISO 13688	
48		Chest	124 (cm)	84-96 cm	EN ISO 13688	PASS
		Height	196 (cm)	158-170 cm	EN ISO 13688	
49		Chest	128 (cm)	84-96 cm	EN ISO 13688	PASS
		Height	197 (cm)	158-170 cm	EN ISO 13688	
50	Chest	130 (cm)	84-96 cm	EN ISO 13688	PASS	

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50	General Size Designation	Height	198 (cm)	158-170 cm	EN ISO 13688	PASS
51	Penetration by spray of liquids (Spray Test)	0 (cm ²)		3 times the maximum calibration stain	BS EN ISO 17491-4	PASS
52	Dry Microbial Penetration	2,06 (log cfu)		2 < log cfu ≤ 3	BS EN ISO 22612+ TS EN 14126 Part4.1.4.4	PERFORMANC E LEVEL:1
53	Penetration By Blood-Borne Pathogens(Bacteriophage)	0 (PFU/ml)		3,5 kPa	BS ISO 16604+ TS EN 14126 Part4.1.4.1	PERFORMANC E LEVEL:3
54		0 (PFU/ml)		3,5 kPa	BS ISO 16604+ TS EN 14126 Part4.1.4.1	
55		0 (PFU/ml)		3,5 kPa	BS ISO 16604+ TS EN 14126 Part4.1.4.1	
56	Total Inward Leakage	Ljmn,82/90:17,8 Ls,8/10:14,2 (%)		Ljmn,82/90≤30 Ls,8/10≤15	ISO 13982-2	PASS
57	Permeation	%40 NaOH 30 min no leak (ug/cm ² .dk)		>30 min	ISO 6529	PERFORMANC E LEVEL:2
58	Penetration by jet of liquids (Jet Test)	0 (cm ²)		3 times the maximum calibration stain	EN ISO 17491-3	PASS
59	Determination of pH - Textile*	6,95		3.5 < Result < 9.5	EN 420 + A1 Part 4.3.2 TS EN ISO 3071	PASS

SAMPLE PLACE

46. Line Sample place for General Size Designation : Size:S
 47. Line Sample place for General Size Designation : Size:M
 48. Line Sample place for General Size Designation : Size:L
 49. Line Sample place for General Size Designation : Size:XL
 50. Line Sample place for General Size Designation: Size:XXL
 50. Line Sample place for General Size Designation: Size:XXL

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Operating as an experimental laboratory, MNA Laboratories have been accredited by TÜRKAK with AB-1183-T and TS_EN_ISO / IEC. 17025: 2017 standard. Turkish Accreditation Agency (TÜRKAK) signed a multilateral agreement with the European Accreditation Association (EA) on the recognition of test reports and a mutual recognition agreement with the International Laboratory Accreditation Association (ILAC).

* Analysis is under accreditation.

Note :

1. No part of this analysis report can be used alone or separately, and may not be partially copied or reproduced, used to third parties and as a means of advertising without the written permission of the laboratory.
2. Analysis results are valid for the above mentioned sample sent by MNA Laboratory company / institution / person. It may not represent the whole.
3. Unsigned and unsealed reports are invalid.
4. This analysis report cannot be used in judicial-administrative procedures and for advertising purposes.
5. Results are valid for the sample as received.
6. The decision rule is the rule that determines how measurement uncertainty is taken into account when specifying the PASS density to a specified specification. According to the TLM-052 Decision Rule Implementation instruction, the Decision Rule Implementation Method selected in agreement with CUSTOMER is clearly stated in the report.
7. Limit Values are determined by taking from analysis methods.
8. The laboratory is not responsible if the information provided by the CUSTOMER affects the validity of the results.
9. Test and / or measurement results, expanded measurement uncertainties (if any) and test methods are given in the following pages, which are the supplementary part of this certificate.
10. Water Repellency Determination Hydrostatic Pressure Determination T S ISO 811 (Hydrostatic Pressure Tester E / N: 53) Analysis, Seam Strength EN ISO 13965-2 (Strength Test Device E / N: 50) Analysis and resistance to liquid chemical permeation TS EN 659 -A1 Part 3.18 (Liquid Chemical Transfer Device E / N: 107) Analysis is carried out in the conditioning room and ISO 139 PART 3.2 conditions (23 ± 2 ° C temperature and 50 ± 4% relative humidity) are applied for ambient conditions.
11. List of phthalates analyzed is below.
Di-iso-nonyl phthalate (DINP), CAS number: 28553-12-0 or 68515-48-0
Di- (2-ethylhexyl) phthalate (DEHP), CAS number: 117-81-7
Di-n-octyl phthalate (DNOP), CAS number: 117-84-0
Di-iso-decyl phthalate (DIDP), CAS number: 26761-40-0 or 68515-49-1
Butyl benzyl phthalate (BBP), CAS number: 85-68-7
Di-butyl phthalate (DBP), CAS number: 84-74-2

Selin GERGİN
Sampling and Reporting
Officer

Erhan ÜSTÜNEL
PPE Laboratory Responsible

Confirmed
09.12.2020
Volkan AKIN
Laboratory Manager