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Technical Document	Article-	**Shakespeare**	Release Date-	01 November 2024
Description-	Drill		Composition-	100% Cotton
Applications-	Apparel			

Weight (g/m2)		205	UNI 5114
Weight Linear (g/m)		308	
Warp Yarn per Inch		146	UNI EN 1049/2
Weft Yarn per Inch		68	
Warp Yarn Count		2/50s	ISO 7211/5
Weft Yarn Count		2/50s	
Minimum Usable Width		146cm	UNI EN 1773
Customs Tariff Code (HS)		52093900	
County of Origin		Turkey	
Yarn Origin		USA/Turkey	
Weaving Origin		Turkey	
Dyeing/Finishing Origin		Turkey	
Sample/Bulk Leadtime (Weeks)		Stock Supported	
Manufacturing Features-			
Piece Dye	Jig Dyeing Method	Reactive Dyestuffs	
Care Instructions-			UNI EN ISO 3758
Dimensional Stability-			
Domestic Washing	Warp	+/- 3%	ISO 6330:2021
	Weft	+/- 3%	
Steam Ironing	Warp	+/- 3%	DIN 53894-2
	Weft	+/- 3%	
Dry Cleaning	Warp	+/- 3%	UNI EN ISO 3175-2
	Weft	+/- 3%	
Physical Features-			
Tensile Strength	Warp	120kg	UNI EN ISO 13934-1
	Weft	40kg	
Tear Strength	Warp	2150g	UNI EN ISO 13927-2
	Weft	2050g	
Seam Slippage (6mm)	Warp	19kg	UNI EN ISO 13935-1
	Weft	>20kg	
Abrasion Resistance (9kPa)	Face	Grade 4/5 @ 30,000 Rubs	UNI EN ISO 12947-2
Pilling (2000 Revolutions)	Face	Grade 4/5	UNI EN ISO 12945-2
Martindale	Face	Grade 4/5	20,000rpm
Maximum Weft Skew		3%	
Stretch and Recovery at 30N Load	Extension	N/A	UNI EN 14704-1
	Residual	N/A	

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Colour Fastness-

		Grade	Change in Colour	Dark Colours					
				Cross Staining					
				Acetate	Cotton	Polyamide	Polyester	Acrylic	Wool
Dry Cleaning	UNI EN ISO 105-D01		3	3	3	3	3	3	3
Dry Ironing	UNI EN ISO 105-X11		3	3	3	3	3	3	3
Wet Ironing	UNI EN ISO 105-X11		3	3	3	3	3	3	3
Acid Pers	UNI EN ISO 105-E04		3	3	3	3	3	3	3
Alkaline Pers	UNI EN ISO 105-E04		3	3	3	3	3	3	3
Water	UNI EN ISO 105-E01		3	3	3	3	3	3	3
Washing	UNI EN ISO 105-C06		3	3	3	3	3	3	3
Dry Rubbing	UNI EN ISO 105-X12				3/4				
Wet Rubbing	UNI EN ISO 105-X12				2/3				
Light	UNI EN ISO 105-B02	4							

		Grade	Change in Colour	Light Colours					
				Cross Staining					
				Acetate	Cotton	Polyamide	Polyester	Acrylic	Wool
Dry Cleaning	UNI EN ISO 105-D01		4	4	4	4	4	4	4
Dry Ironing	UNI EN ISO 105-X11		4	4	4	4	4	4	4
Wet Ironing	UNI EN ISO 105-X11		4	4	4	4	4	4	4
Acid Pers	UNI EN ISO 105-E04		4	4	4	4	4	4	4
Alkaline Pers	UNI EN ISO 105-E04		4	4	4	4	4	4	4
Water	UNI EN ISO 105-E01		4	4	4	4	4	4	4
Washing	UNI EN ISO 105-C06		4	4	4	4	4	4	4
Dry Rubbing	UNI EN ISO 105-X12				4				
Wet Rubbing	UNI EN ISO 105-X12				3				
Light	UNI EN ISO 105-B02	>4							

Chemical and Ecotoxicological-

pH-value Water Extract	4.0 - 7.5	UNI EN ISO 3071
Flammability	Class 1	16 CFR 1610
Formaldehyde	< 16 mg/kg	UNI EN ISO 14184/1
Cancer-causing Aromatic Amines	< 20 ppm	DIN EN ISO 14362/1
REACH Compliant	Yes	Reg.(UE) 1907/2006

Standard(s)-

Compliant with the National Standard of the People's Republic of China	GB18401-2010
GOTS Available	GCL-303412-GOTS-2025
Okeo-Tex Standard 100 Certified	11-52140 Shirley

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Test Report	No. 28515396	Date: 27th November 2024	Page 1 of 9

Sample Description : Drill
Customer : **Brisbane Moss; Bridgeroyd Works, Todmorden, OL14 6DF**
Product type : Apparel Shakespeare100% Cotton 205 gsm
PO Number : 13438-17A
Colour : Dk Navy / 12T
Contact person : Stephen Newham, Joshua Barker-Lockwood

Test Performed : Selected test(s) as requested by applicant
* * * * *
Sample Receiving Date : 15th November 2024
Testing Period : 15th November 2024 – 26th November 2024
Test Result(s) : For further details, please refer to the following page(s).

Conclusion:

Test Property			
Colour Fastness to Washing	Data	Tear Strength - Trouser	Data
Colour Fastness to Dry Cleaning	Data	Seam Slippage	Data
Colour Fastness to Perspiration	Data	Pilling Resistance	Data
Colour Fastness to Water	Data	Abrasion Resistance	Data
Colour Fastness to Light*	Data	Yarn Count*	Data
Colour Fastness to Hot Pressing*	Data	Formaldehyde*	Pass
Colour Fastness to Rubbing	Data	pH Value	Data
Dimensional Stability to Washing	Data	Bow & Skew**	Data
Dimensional Stability to Dry Cleaning**	Data	Azo Dyes*	Pass
Dimensional Stability to Free Steam (wira)*	Data	Mass per Unit Area	Data
Tensile Strength	Data	Tear Strength - Elmandorf	Data

*Sub Contracted tests withing TUV Group Laboratories (Turkey)
**Not UKAS Accredited

Signed for and on behalf of
TÜV Rheinland UK LTD

Christopher Clarke
Digitally signed by Christopher Clarke
Date: 2024.11.27 12:24:39 Z

Chris Clarke
Laboratory Supervisor

UKAS TESTING
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United Kingdom Tel: +44 1773 300 362, Email: joanne.brown@uk.tuv.com,Internet: http://www.tuv.com

Results:

Colour Fastness to Washing
Washing Condition: A2S, 30°C (Deviation) With ECE(B) + Sodium Perborate, 10 Steel Balls.

Sample	Result
Colour Change	4-5
Self-Staining	-
Colour Staining	**Result**
Acetate	4-5
Cotton	4-5
Polyamide	4-5
Polyester	4-5
Acrylic	4-5
Wool	4-5

Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good

Colour Fastness to Water
BS EN ISO 105 E01: 2013

Sample	Result
Colour Change	4-5
Self-Staining	-
Colour Staining	**Result**
Acetate	4-5
Cotton	4-5
Polyamide	4-5
Polyester	4-5
Acrylic	4-5
Wool	4-5

Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good

Colour Fastness to Rubbing
BS EN ISO 105 X12: 2016

Sample	Result			
	Warp		**Weft**	
	Dry: 4-5		**Dry:** 4-5	
	Wet: 2-3	**% Soak:** 100	**Wet:** 2-3	**% Soak:** 100

Atmospheric Conditions: 65% RH, 20°C
Conditioning time of sample and rubbing cloth: 4 Hours

Colour Fastness to Light BS EN ISO 105 B02 Method 3: 2013	
Sample	
	4

Colour Fastness to Hot Pressing BS EN ISO 105 X11 @ 150°C: 1994	
Sample	
Sample	Immediately After Testing colour Change Dry: 4-5 Damp: 4-5 Wet: 4-5 After Conditioning Colour Change Dry: 4-5 Damp: 4-5 Wet: 4-5 Colour Staining Damp: 4-5 Wet: 4

Colour Fastness to Dry Cleaning BS EN ISO 105-D01: 2010	
	Result
Colour Change	4-5
Self-Staining	-
Colour Staining	**Result**
Acetate	4-5
Cotton	4-5
Polyamide	4-5
Polyester	4-5
Acrylic	4-5
Wool	4-5
Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good	

Colour Fastness To Perspiration
BS EN ISO 105-E04: 2013

Sample	Result	
	Acid	Alkaline
Colour Change	4-5	4-5
Self-Staining		
Colour Staining	Result	Result
Acetate	4-5	4-5
Cotton	4-5	4-5
Polyamide	4-5	4-5
Polyester	4-5	4-5
Acrylic	4-5	4-5
Wool	4-5	4-5

Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good

Abrasion Resistance
(BS EN ISO 12947-2:2016/AC:2006); Martindale Wear & Abrasion Tester; 9 kPa Pressure)
The criterion for judging end point was Two Threads Broken

	Result		
	Specimen 1	Specimen 2	Specimen 3
No Two Thread Breakdown	30,000	30,000	30,000
Colour Change At 3000 (rubs)	4-5	4-5	4-5

Remarks: Grey Scale Rating is based on the step scale of 1 to 5, where 1 is bad and 5 is good
Observation Technique:40 fold magnification

Pilling Resistance
(BS EN ISO 12945-2:2020; Martindale Abrasion & Pilling Tester; Tested against self
No cleansing required

	Average Result
After 2000 Rubs Rating	P: 4-5 F: 4 M: 4-5

P=Pilling
F-Fuzzing
M=Matting

Tensile Strength (BS EN ISO 13934-1:2013)	
Direction	**Result**
Warp	121.6 kg
Weft	40.3 kg

Dimensional Change After Washing BS EN ISO 6330: 2012 3N @ 30°C Flat Dry	
Direction	**%Change**
Warp	-1.9
Weft	-0.5

Dimensional Change After Commercial Dry Cleaning (Commercial dry clean cycle)	
Direction	**%Change**
Warp	-0.7
Weft	0.0

Dimensional Change to Free Steam (wira) BS 4323: 1979	
Direction	**%Change**
Warp	-0.8
Weft	-0.8

Bow & Skewness ISO 13015: 2013	
Direction	
Bow	0.0 %
Skew	0.0 %

Yarn Count ISO 7211-5 Method A	
Sample	**Result**
	Warp: Nm: 41.0, Ne: 24.1 Weft: Nm: 42.6, Ne: 25.1 Nm: Metric Count Ne: Cotton Count

Formaldehyde Content ISO 14184-1: 2011	
Sample	**Result**
	Not Detected <16 mg/kg

pH Value ISO 3071: 2005 (withdrawn)	
Sample	**Result**
	pH 7.02
pH value of Grade 3 water: 7.1	
Temperature of the Grade 3 water: 16.4	

Seam Slippage BS EN ISO 13936-1: 2004 6mm SO	
Sample	**Result**
Warp	19.7 kg
Weft	A 6mm seam opening was not found at a seam breakdown of >20.4 kg
Remarks:	

Tearing Strength BS EN ISO 13937-2: 2000	
Sample	**Result**
Warp	2188 g
Weft	2053 g

Fabric Weight Per Unit Area (BS EN 12127:1998)	
Sample	**Result (g/m²)**
	201.8 g/m² Claimed: 205 g/m²
g/m² - grams per square meter	

Tearing Strength (BS EN ISO 13937-1:2000; Elmendorf Tear)	
Sample	**Result**
Warp	2993 g
Weft	2749 g

4. Banned azo dyes

Test Method: Method 1 - EN ISO 14362-1:2017 (Textiles) (Buffer extraction)
Method 2 - EN ISO 14362-1:2017 (Textiles) (Xylene extraction)
Method 3 - ISO 17234-1:2020 (Leather)
Method 4 - EN ISO 14362-3:2017 (Textile, 4-aminoazobenzene confirmation)
Method 5 - ISO 17234-2:2011 (Leather, 4-aminoazobenzene confirmation)

Test Results:

					Material No.	M001
					Test No.	T001-1
					Method No.	Method 1
					A22 Confirmation Method No.	--
ID	Test Parameter	CAS NO	Unit	RL	Regulatory Requirement	Result
A1	4-Aminobiphenyl	92-67-1	mg/kg	5	30	n.d.
A2	Benzidine	92-87-5	mg/kg	5	30	n.d.
A3	4-Chloro-o-toluidine	95-69-2	mg/kg	5	30	n.d.
A4	2-Naphthylamine	91-59-8	mg/kg	5	30	n.d.
A5*	o-Aminoazotoluene	97-56-3	mg/kg	5	30	n.d.
A6*	5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	mg/kg	5	30	n.d.
A7	4-Chloroaniline	106-47-8	mg/kg	5	30	n.d.
A8	4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	mg/kg	5	30	n.d.
A9	4,4'-Diaminodiphenylmethane	101-77-9	mg/kg	5	30	n.d.
A10	3,3'-Dichlorobenzidine	91-94-1	mg/kg	5	30	n.d.
A11	3,3'-Dimethoxybenzidine	119-90-4	mg/kg	5	30	n.d.
A12	3,3'-Dimethylbenzidine	119-93-7	mg/kg	5	30	n.d.
A13	4,4'-methylenedi-o-toluidine / 3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	mg/kg	5	30	n.d.
A14	p-Cresidine	120-71-8	mg/kg	5	30	n.d.
A15	4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	mg/kg	5	30	n.d.
A16	4,4'-Oxydianiline	101-80-4	mg/kg	5	30	n.d.
A17	4,4'-Thiodianiline	139-65-1	mg/kg	5	30	n.d.
A18	o-Toluidine	95-53-4	mg/kg	5	30	n.d.
A19	4-methyl-m-phenylenediamine / 2,4-Toluylendiamine	95-80-7	mg/kg	5	30	n.d.
A20	2,4,5-Trimethylaniline	137-17-7	mg/kg	5	30	n.d.
A21	O-Anisidine	90-04-0	mg/kg	5	30	n.d.
A22**	4-Aminoazobenzene	60-09-3	mg/kg	5	30	n.d.
A23^	2,4-xylidine	95-68-1	mg/kg	5	30	n.d.
A24^	2,6-xylidine	87-62-7	mg/kg	5	30	n.d.
*2	2-Naphthyl-ammoniumacetate	553-00-4	mg/kg	5	30	n.d.
A26	4-chloro-o-toluidinium chloride	3165-93-3	mg/kg	5	30	n.d.
A25	4-chloro-o-toluidinium chloride	3165-93-3	mg/kg	5	30	n.d.
A27	4-Methoxy-m-phenylene diammonium sulphate	39156-41-7	mg/kg	5	30	n.d.
A28	2,4,5-trimethylaniline hydrochloride	21436-97-5	mg/kg	5	30	n.d.

Remark:

* The CAS-number 97-56-3 (A5) and 99-55-8 (A6) are further reduced to CAS-number 95-53-4 (A18) and 95-80-7 (A19).

** Azo colorants that are able to form 4-aminoazobenzene (A22) CAS-number 60-09-3, generate under the condition of this method Aniline (CAS-number 62-53-3) and 1,4-phenylenediamine (CAS-number 106-50-3.)

*** Azo colorants that are able to form 4-aminoazobenzene (A22), is confirmed by EN ISO 14362-3:2017 / ISO 17234-2:2011.

**** Azo colorants are detected & quantified by GC/MS and confirmed by HPLC/DAD or HPLC/MSMS.

-End of Test Report-

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Test Report	No. 28515397	Date: 25th November 2024	Page 1 of 4

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description	:	Drill
Customer	:	**Brisbane Moss; Bridgeroyd Works, Todmorden, OL14 6DF**
Product type	:	Apparel Shakespeare 100% Cotton 205 gsm
PO Number	:	13279-20B
Colour	:	Cream / 12T
Contact person	:	Stephen Newham, Joshua Barker-Lockwood

Test Performed	:	Selected test(s) as requested by applicant
* * * * *		
Sample Receiving Date	:	15th November 2024
Testing Period	:	15th November 2024 – 25th November 2024
Test Result(s)	:	For further details, please refer to the following page(s).

Conclusion:

Test Property	
Colour Fastness to Washing	Data
Colour Fastness to Dry Cleaning	Data
Colour Fastness to Perspiration	Data
Colour Fastness to Water	Data
Colour Fastness to Light*	Data
Colour Fastness to Hot Pressing*	Data
Colour Fastness to Rubbing	Data

*Sub Contracted tests withing TUV Group Laboratories (Turkey)
**Not UKAS Accredited

Signed for and on behalf of
TÜV Rheinland UK LTD

Christopher Clarke
Digitally signed by Christopher Clarke
Date: 2024.11.25 15:05:52 Z

Chris Clarke
Laboratory Supervisor

UKAS TESTING
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Test result is drawn according to the kind and extent of tests performed.
Without permission of the test centre this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products. This test report represents the test parameters as requested by the customer based on submitted samples only.

Results:

Colour Fastness to Washing Washing Condition: A2S, 30°C (Deviation) With ECE(B) + Sodium Perborate, 10 Steel Balls.	
Sample	**Result**
Colour Change	4-5
Self-Staining	-
Colour Staining	
Acetate	4-5
Cotton	4-5
Polyamide	4-5
Polyester	4-5
Acrylic	4-5
Wool	4-5
Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good	

Colour Fastness to Water BS EN ISO 105 E01: 2013	
Sample	**Result**
Colour Change	4-5
Self-Staining	-
Colour Staining	
Acetate	4-5
Cotton	4-5
Polyamide	4-5
Polyester	4-5
Acrylic	4-5
Wool	4-5
Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good	

Colour Fastness to Rubbing BS EN ISO 105 X12: 2016				
Sample	**Result**			
	Warp		**Weft**	
	Dry: 4-5	**Wet:** 4-5	**Dry:** 4-5	**Wet:** 4-5
Atmospheric Conditions: 65% RH, 20°C				
Conditioning time of sample and rubbing cloth: 4 Hours				

Colour Fastness to Light BS EN ISO 105 B02 Method 3: 2013	
Sample	
	>4

Colour Fastness to Hot Pressing BS EN ISO 105 X11 @ 150°C: 1994	
Sample	
Sample	Immediately After Testing Colour Change Dry: 4-5 Damp: 4-5 Wet: 4-5 After Conditioning Colour Change Dry: 4-5 Damp: 4-5 Wet: 4-5 Colour Change Damp: 4-5 Wet: 4-5

Colour Fastness to Dry Cleaning BS EN ISO 105-D01: 2010	
	Result
Colour Change	4-5
Self-Staining	-
Colour Staining	
Acetate	4-5
Cotton	4-5
Polyamide	4-5
Polyester	4-5
Acrylic	4-5
Wool	4-5
Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good	

Colour Fastness To Perspiration BS EN ISO 105-E04: 2013		
Sample	**Result**	
	Acid	**Alkaline**
Colour Change	4-5	4-5
Self-Staining	-	-
Colour Staining	**Result**	**Result**
Acetate	4-5	4-5
Cotton	4-5	4-5
Polyamide	4-5	4-5
Polyester	4-5	4-5
Acrylic	4-5	4-5
Wool	4-5	4-5
Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good		

-End of Test Report-

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Test Report	No. 28515602	Date: 14th February 2025	Page 1 of 8

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description	:	Drill
Customer	:	**Brisbane Moss; Bridgeroyd Works, Todmorden, OL14 6DF**
Product type	:	Apparel Shakespeare 100% Cotton 205 g/m²
PO Number	:	13276-7A
Colour	:	Navy / 11
Contact person	:	Stephen Newham, Joshua Barker-Lockwood

Test Performed	:	Selected test(s) as requested by applicant
Sample Receiving Date	:	3rd February 2025
Testing Period	:	3rd February 2025 – 14th February 2025
Test Result(s)	:	For further details, please refer to the following page(s).

Conclusion:

Test Property – REACH Annex XVII	
Aromatic Amine Salts*	Pass
Dimethyl Fumarate*	Pass
Migration of Heavy Metals*	Pass
Flame Retardants*	Pass
AP + APEO (Alkylphenols, Alkylphenol Ethoxylates)*	Pass
Quinoline*	Pass
Polycyclic Aromatic Hydrocarbons (PAHs)*	Pass
Pentachlorophenol (PCP) Content*	Pass
Per – and Polyfluoroalkyl Substances (PFAS)*	Pass
Organotin Compounds Content*	Pass

*Sub Contracted tests withing TUV Group Laboratories (Turkey)
**Not UKAS Accredited

Signed for and on behalf of
TÜV Rheinland UK LTD

Christopher Clarke

Digitally signed by Christopher Clarke
Date: 2025.02.14 09:55:30 Z

Chris Clarke
Laboratory Supervisor

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United Kingdom Tel: +44 1773 300 362, Email: joanne.brown@uk.tuv.com,Internet: http://www.tuv.com

Material No.	Material	Color	Location
M001	Textile	Navy	Woven base

Results:

1. Aromatic Amine Salts

Test Method: DIN EN ISO 14362-1:2017
DIN EN ISO 14362-3:2017
Analyzed by GC-MSD

Test Result:

				Test No.	T001
				Material No.	M001
Test Parameter	CAS NO	Unit	RL	Regulatory Requirement	Result
4-chloro-o-toluidinium chloride	3165-93-3	mg/kg	5	30	n.d.
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	mg/kg	5	30	n.d.
2,4,5-trimethylaniline hydrochloride	21436-97-5	mg/kg	5	30	n.d.
2-Naphthyl-ammoniumacetate	553-00-4	mg/kg	5	30	n.d.
Conclusion				-	

Abbreviation: n.d. = Not Detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram

2.Dimethyl fumarate (CAS No.624-49-7)

Test Method: Organic solvent extraction, GCMS analysis

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Test Result
T001	M001	Dimethyl fumarate	mg/kg	0.025	0.1	n.d.

Abbreviation: < = less than
RL = Reporting Limit
mg/kg = milligram per kilogram

3. Migration of Heavy Metals

Test Method: All materials expect leather: DIN EN 16711-2:2016
Leather: DIN EN ISO 17072-1:2019

Test Result:

			Test No.	T001
			Material No.	M001
Test Parameter	Unit	RL	Customer Requirement	Result
Arsenic (As)	mg/kg	0.1	< 1 mg/kg each	n.d.
Cadmium (Cd)	mg/kg	0.05	< 1 mg/kg each	n.d.
Chromium (Cr)	mg/kg	0.5	< 1 mg/kg each	n.d.
Lead (Pb)	mg/kg	0.2	< 1 mg/kg each	n.d.
Conclusion				Pass

Abbreviation: < = less than
RL = Reporting Limit
mg/kg = milligram per kilogram

4.Flame Retardants

Test Method: 1. Organic solvent extraction, GCMS/LCMSMS
2. Acid digestion, analyzed by ICP-MS

				Test No.	T001
				Material No.	M001
Test Parameter	CAS No.	Unit	RL	Formulation Limit	Test Result
Octabromodiphenyl ether (OctaBDE)	32536-52-0	mg/kg	100	< 1000 mg/kg	n.d.
Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	mg/kg	100	< 1000 mg/kg	n.d.
Tris(2,3,-dibromopropyl)-phosphate (TRIS)	126-72-7	mg/kg	100	not used	n.d.
Decabromodiphenyl ether (DecaBDE)	1163-19-5	mg/kg	100	< 1000 mg/kg	n.d.
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	mg/kg	100	< 500 mg/kg	n.d.
Tris(1-aziridinyl)phosphineoxide) (TEPA)	545-55-1	mg/kg	100	not used	n.d.
Polybromobiphenyls (PBB)	59536-65-1	mg/kg	100	not used	n.d.
Hexabromocyclododecane(HBCDD)	3194-55-6	mg/kg	100	< 100 mg/kg	n.d.
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	mg/kg	100	< 500 mg/kg	n.d.
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	mg/kg	100	< 500 mg/kg	n.d.
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	mg/kg	100	< 500 mg/kg	n.d.

Abbreviation: < = less than
RL = Reporting Limit
ppm = part per million

5.AP + APEO (Alkylphenols, Alkylphenol Ethoxylates)

Test Method: ISO 18254-1:2016
NP and OP: Organic solvent extraction, GCMS
NPEO and OPEO: Organic solvent extraction, LC-MS

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Test Result
T001	M001	Nonylphenols (NP)	mg/kg	5	-	n.d.
		Octylphenols (OP)	mg/kg	5	-	n.d.
		Nonylphenolethoxylates (NPEO)	mg/kg	20	< 100 mg/kg	n.d.
		Octylphenolethoxylates (OPEO)	mg/kg	20	< 100 mg/kg	n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram
NA = Not Applicable

6.Quinoline

Test Method: Ref. to DIN 54231:2022

Test Result:

Test No.	Material No.	Test Parameter	CAS No.	Unit	RL	Regulatory Requirement	Test Result	Conclusion
T001	M001	Quinoline	91-22-5	mg/kg	10	50	n.d.	Pass

Abbreviation: < = less than
RL = Reporting Limit
mg/kg = milligram per kilograms

7. Polycyclic aromatic hydrocarbons (PAHs)

Test Method: AfPS GS 2019:01

Test Result:

				Test No.	T001
				Material No.	M001
Test Parameter	CAS NO	Unit	RL	Regulatory Requirement	Result
Benzo[a]anthracene	56-55-3	mg/kg	0.2	< 1 mg/kg	n.d.
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.2	< 1 mg/kg	n.d.
Benzo[b]fluoranthene	205-99-2	mg/kg	0.2	< 1 mg/kg	n.d.
Benzo[k]fluoranthene	207-08-9	mg/kg	0.2	< 1 mg/kg	n.d.
Benzo[j]fluoranthene	205-82-3	mg/kg	0.2	< 1 mg/kg	n.d.
Benzo[e]pyrene	192-97-2	mg/kg	0.2	< 1 mg/kg	n.d.
Chrysene	218-01-9	mg/kg	0.2	< 1 mg/kg	n.d.
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.2	< 1 mg/kg	n.d.
Naphthalene	91-20-3	mg/kg	0.2	< 1 mg/kg	n.d.
Anthracene	120-12-7	mg/kg	0.2	Sum 10	n.d.
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.2		n.d.
Fluoranthene	206-44-0	mg/kg	0.2		n.d.
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.2		n.d.
Phenanthrene	85-01-8	mg/kg	0.2		n.d.
Pyrene	129-00-0	mg/kg	0.2		n.d.

Abbreviation: < = less than
RL = Reporting Limit
NA = Not Applicable
mg/kg = milligram per kilogram

8.Pentachlorophenol (PCP) Content

Test Method: Ref. to 64 LFGB B82.02-8:2001

Test result

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Test Result
T001	M001	Pentachlorophenol (PCP)	mg/kg	0.1	≤ 5 mg/kg	n.d.

Abbreviation: < = less than
RL = Reporting Limit
mg/kg = milligram per kilogram

9.Per-and polyfluoroalkyl substances(PFAS)

Test Method: Reference EN 17681-1:2022/EN 17681-2:2022, determination by CI-GCMS, GC-MSMS and LC-MSMS.

Test Result:

				Test No.	T001
				Material No.	M001
Test Parameter	CAS NO	Unit	RL	Customer's requirement	Result
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	µg/m²	1	< 1 µg/m²	n.d.
Perfluorooctane sulfonamide (PFOSA)	754-91-6	µg/m²	1	< 1 µg/m²	n.d.
Perfluorooctanoic acid (PFOA)	335-67-1	µg/m²	1	< 1 µg/m²	n.d.
Sodium perfluorooctanoate (PFOA-Na)	335-95-5	mg/kg	1	< 1 µg/m²	n.d.
Potassium perfluorooctanoate (PFOA-K)	2395-00-8	mg/kg	1	< 1 µg/m²	n.d.
Silver perfluorooctanoate (PFOA-Ag)	335-93-3	mg/kg	1	< 1 µg/m²	n.d.
Perfluorooctanoyl fluoride (PFOA-F)	335-66-0	mg/kg	1	< 1 µg/m²	n.d.
Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	mg/kg	1	< 1 µg/m²	n.d.
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	mg/kg	1	< 1 µg/m²	n.d.
1H,1H,2H,2H-Perfluorododecanol (10:2 FTOH)	865-86-1	mg/kg	1	< 1 µg/m²	n.d.
Perfluorocylethanol 8:2 (8:2 FTOH)	678-39-7	mg/kg	1	< 1 µg/m²	n.d.
Conclusion					Pass

Abbreviation: < = Less than
RL = Reporting Limit
mg/kg = milligram per kilogram
µg/m² = microgram per square metre

10.Organotin compounds content

Test Method: Organic solvent extraction, GCMS
Ref. to ISO/TS 16179:2012

			Test No.	T001
			Material No.	M001
Test Parameter	Unit	RL	Regulatory Requirement	Result
TBT(Tributyltin) by weight of tin	%	0.01	< 0.1 %	n.d.
TPT(Triphenyltin) by weight of tin	%	0.01	< 0.1 %	n.d.
TOT(Trioctyltin) by weight of tin	%	0.01	< 0.1 %	n.d.
TCyT(Tricyclohexyltin) by weight of tin	%	0.01	< 0.1 %	n.d.
TPrT(Tripropyltin) by weight of tin	%	0.01	< 0.1 %	n.d.
Sum of Tin of tri-substituted organotins	%	NA	< 0.1 %	n.d.
DBT(Dibutyltin) by weight of tin	%	0.01	< 0.1 %	n.d.
DOT(Dioctyltin) by weight of tin	%	0.01	< 0.1 %	n.d.

Abbreviation: < = less than
RL = Reporting Limit
% = percentage
NA = Not Applicable

-End of Test Report-

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Test TS EN ISO/IEC 17025 AB-0505-T

AB-0505-T

72251690392

06-25

TEST REPORT

LAB LOCATION: TURKEY
SERVICE TYPE: Urgent
LAB NUMBER: (7225)169-0392
THE DATE OF RECEIPT OF TEST ITEM: June 18, 2025
START DATE FOR TESTING: June 18, 2025
DATE END OF TEST: June 19, 2025
NUMBER OF WORKING DAYS: 2.0

CUSTOMER NAME / ADDRESS CONTACT NAME	:	M CHAPMAN&SONS LTD (Address: Bridgeroyd Works, Halifax Rd, Todmorden, Lancashire, OL14 6DF) (Attn: Paige/Josh)
BUYER	:	/
SUPPLIER REFERENCE	:	Style Number: / PO Number: 12997 Item No:9
SAMPLE DESCRIPTION	:	Woven Fabric Sample (Shakespeare) (Claimed Fiber Content: 100% Cotton) (Claimed Fabric Weight: /)
COLOUR	:	Navy 11T
SUBMITTED CARE INSTRUCTION:	:	
REASON FOR REVISION	:	/

Date Out
(19/06/2025)

Ayşegül Karayılan
Senior Client Team Lead

Hasan Altingul
Deputy General Manager Operation
(19/06/2025)

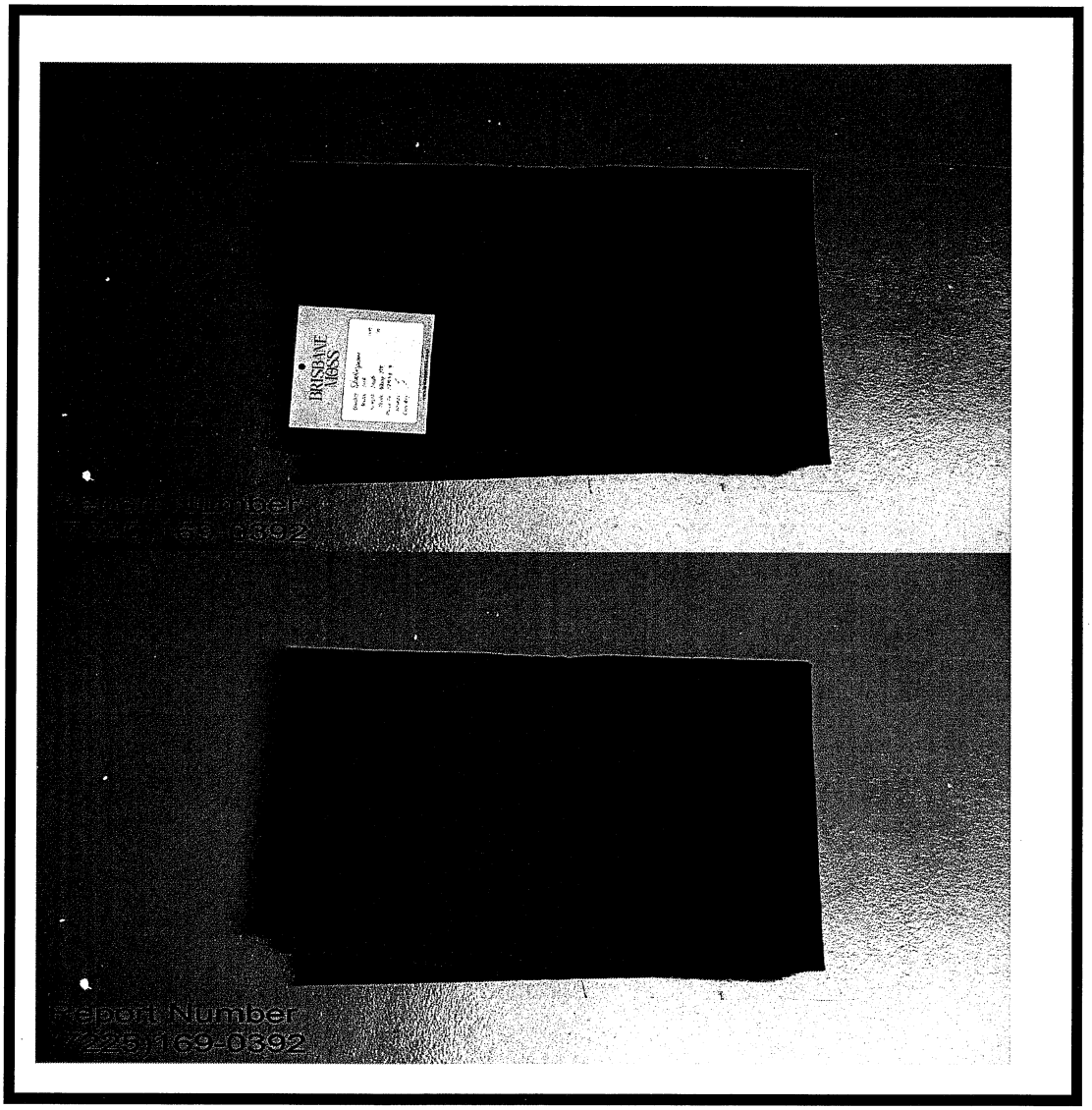
C/N/ ET/SD

SUMMARY OF TEST RESULTS

TEST PERFORMED	PASS	FAIL	DATA
Flammability Of Clothing Textiles*			X
*** TURKAK Accredited- See Appendix A**			

REMARKS		
1	:	P: Pass, F: Fail, DATA: No Evaluation, N/A: Not Applicable
2	:	*The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. Unless otherwise is specified, the uncertainty of measurement has not been taken into account when assessing pass/fail of the sample against the requirements of the standard. In case consideration of measurement uncertainties when assessing pass/ fail limits, some results may be in borderline. Information on uncertainty is contained in appendix A on this report.
3	:	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.

ORIGINAL
(SAMPLE IMAGE)



TEST PROPERTY		REQUIREMENTS
FLAMMABILITY OF CLOTHING TEXTILES(16 CFR 1610)		
CLASSIFICATION	IF SAMPLE FALLS UNDER SPECIFIC EXEMPTIONS AS LISTED BELOW, THE REPORT SHOULD BE RATED AS A PASS AND THE SPECIFIC EXEMPTION SHOULD BE NOTED IN THE REPORT. EXEMPT DUE TO FABRIC WEIGHT: 6.2 OZ/YD² THE SUBMITTED SAMPLE(S) IS(ARE) EXEMPT FROM FLAMMABILITY TESTING IN ACCORDANCE WITH 16 CFR 1610.1(D) WHICH STATES: SPECIFIC EXEMPTIONS EXPERIENCE GAINED FROM YEARS OF TESTING IN ACCORDANCE WITH THE STANDARD DEMONSTRATES THAT CERTAIN FABRICS CONSISTENTLY YIELD ACCEPTABLE RESULTS WHEN TESTED IN ACCORDANCE WITH THE STANDARD. THEREFORE, PERSONS AND FIRMS ISSUING AN INITIAL GUARANTY OF ANY OF THE FOLLOWING TYPES OF FABRICS, OR OF PRODUCTS MADE ENTIRELY FROM ONE OR MORE OF THESE FABRICS ARE EXEMPT FROM ANY REQUIREMENT FOR TESTING TO SUPPORT GUARANTIES OF THOSE FABRICS. 1. PLAIN SURFACE FABRICS, REGARDLESS OF FIBER CONTENT, WEIGHING 2.6 OUNCES PER SQUARE YARD OR MORE; AND 2. ALL FABRICS, BOTH PLAIN SURFACE AND RAISED-FIBER SURFACE, REGARDLESS OF WEIGHT, MADE ENTIRELY FROM ANY OF THE FOLLOWING FIBERS OR ENTIRELY FROM COMBINATION OF THE FOLLOWING FIBERS: ACRYLIC, MODACRYLIC, NYLON, OLEFIN, POLYESTER, WOOL.	CLASS 1

** Indicates below the requirement.

APPENDIX A –LIST OF MEASUREMENT UNCERTAINTIES		
TEST NAME	STANDARD NAME	MEASUREMENT UNCERTAINTY
FLAMMABILITY OF CLOTHING TEXTILES	16 CFR 1610	±7,9 %

-End of Report-