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M Chapman & Sons Textiles Ltd

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BB11 5PW

| <u>Technical Document</u> | | Article- | 3101X | Release Date- | 01 November 2024 |
|----------------------------------|-------------------|-----------------------------|--------------------|--------------------|------------------|
| Description- | | 8 wale Heavyweight Corduroy | Composition- | 100% Cotton | |
| Applications- | | Apparel | | | |
| Weight (g/m ²) | | 460 | | UNI 5114 | |
| Weight Linear (g/m) | | 690 | | | |
| Warp Yarn per Inch | | 46 | | UNI EN 1049/2 | |
| Weft Yarn per Inch | | 230 | | | |
| Warp Yarn Count | | 2/20s | | ISO 7211/5 | |
| Weft Yarn Count | | 16 | | | |
| Minimum Usable Width | | 146cm | | UNI EN 1773 | |
| Customs Tariff Code (HS) | | 58012200 | | | |
| County of Origin | | Italy | | | |
| Yarn Origin | | USA/Turkey | | | |
| Weaving Origin | | Italy/Austria | | | |
| Dyeing/Finishing Origin | | Italy | | | |
| Sample/Bulk Leadtime (Weeks) | | Stock Supported | | | |
| <u>Manufacturing Features-</u> | | | | | |
| Piece Dye | Jig Dyeing Method | | Reactive Dyestuffs | | |
| <u>Care Instructions-</u> | | | | UNI EN ISO 3758 | |
| | | | | | |
| <u>Dimensional Stability-</u> | | | | | |
| 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% | | | |
| <u>Physical Features-</u> | | | | | |
| Tensile Strength | Warp | 45kg | | UNI EN ISO 13934-1 | |
| | Weft | 45kg | | | |
| Tear Strength | Warp | 2700g | | UNI EN ISO 13927-2 | |
| | Weft | 2700g | | | |
| Seam Slippage (6mm) | Warp | > 20kg | | 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 |
| Dry Ironing | UNI EN ISO 105-X11 | 3 | 3 | 3 | 3 | 3 | 3 |
| Wet Ironing | UNI EN ISO 105-X11 | 3 | 3 | 3 | 3 | 3 | 3 |
| Acid Pers | UNI EN ISO 105-E04 | 3 | 3 | 3 | 3 | 3 | 3 |
| Alkaline Pers | UNI EN ISO 105-E04 | 3 | 3 | 3 | 3 | 3 | 3 |
| Water | UNI EN ISO 105-E01 | 3 | 3 | 3 | 3 | 3 | 3 |
| Washing | UNI EN ISO 105-C06 | 3 | 3 | 3 | 3 | 3 | 3 |
| Dry Rubbing | UNI EN ISO 105-X12 | | | 3/4 | | | |
| Wet Rubbing | UNI EN ISO 105-X12 | | | 2 | | | |
| 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 |
| Dry Ironing | UNI EN ISO 105-X11 | 4 | 4 | 4 | 4 | 4 | 4 |
| Wet Ironing | UNI EN ISO 105-X11 | 4 | 4 | 4 | 4 | 4 | 4 |
| Acid Pers | UNI EN ISO 105-E04 | 4 | 4 | 4 | 4 | 4 | 4 |
| Alkaline Pers | UNI EN ISO 105-E04 | 4 | 4 | 4 | 4 | 4 | 4 |
| Water | UNI EN ISO 105-E01 | 4 | 4 | 4 | 4 | 4 | 4 |
| Washing | UNI EN ISO 105-C06 | 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 |
| Better Cotton Available | 1030682-1 |

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| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515284 | Date: 7 th November 2024 | Page 1 of 9 |
|--------------------|--------------|-------------------------------------|-------------|

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

Sample Description : 8 Wale Heavyweight Corduroy
Customer : **Brisbane Moss; Bridgeroyd Works, Todmorden, OL14 6DF**
Product type : Apparel Fabric 3101X 100% Cotton 460 gsm
PO Number : 13360-61
Colour : Black/3213
Contact person : Stephen Newham, Joshua Barker-Lockwood

Test Performed : Selected test(s) as requested by applicant
 * * * *
Sample Receiving Date : 17th October 2024
Testing Period : 17th October 2024 – 7th 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 | 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 | | |
| Tensile Strength | Data | | |

*Sub Contracted tests withing TUV Group Laboratories (Turkey)

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**Signed for and on behalf of
TÜV Rheinland UK LTD**

Christopher

Digitally signed by

Christopher Clarke

Date: 2024.11.07 15:15:18 Z

Chris Clarke

Laboratory Supervisor



8400

Test result is drawn according to the kind and extent of tests performed.

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Test Report

No. 28515284

 Date: 7th November 2024

Page 2 of 9

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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 |
| 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 |
| Polyamide | 4 |
| 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 | |
| | Dry: 4-5 Wet: 2-3 | % Soak: 100 |
| | Dry: 4-5 Wet: 2-3 | % Soak: 100 |

Atmospheric Conditions: 65% RH, 20°C

Conditioning time of sample and rubbing cloth: 4 Hours

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515284 | Date: 7 th November 2024 | Page 3 of 9 |
|--------------------|--------------|-------------------------------------|-------------|

| | |
|---|----|
| 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 | <p>Immediately After Testing colour Change Dry: 4-5 Damp: 4-5 Wet: 4-5</p> <p>After Conditioning Colour Change Dry: 4-5 Damp: 4-5 Wet: 4-5</p> <p>Colour Staining Damp: 4-5 Wet: 3-4</p> |

| | |
|---|---------------|
| 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

Test Report

No. 28515284

 Date: 7th November 2024

Page 4 of 9

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: 4-5 M: 4-5 |
| P=Pilling F=Fuzzing M=Matting | |

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515284 | Date: 7 th November 2024 | Page 5 of 9 |
|--------------------|--------------|-------------------------------------|-------------|

| Tensile Strength (BS EN ISO 13934-1:2013) | |
|---|---------------|
| Direction | Result |
| Warp | 52.9 kg |
| Weft | 45.4 kg |

| Dimensional Change After Washing BS EN ISO 6330: 2012 3N @ 30°C Flat Dry | |
|---|----------------|
| Direction | %Change |
| Warp | -1.4 |
| Weft | -2.9 |

| Dimensional Change After Commercial Dry Cleaning (Commercial dry clean cycle) | |
|---|----------------|
| Direction | %Change |
| Warp | -0.3 |
| Weft | -1.4 |

| Dimensional Change to Free Steam (wira) BS 4323: 1979 | |
|---|----------------|
| Direction | %Change |
| Warp | -1.0 % |
| Weft | -1.6 % |

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515284 | Date: 7 th November 2024 | Page 6 of 9 |
|--------------------|--------------|-------------------------------------|-------------|

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

| | |
|--|---|
| Yarn Count ISO 7211-5 Method A | |
| Sample | Result |
| | Warp: Nm: 16.8, Ne: 9.9 Weft: Nm: 25.0, Ne: 14.7 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 7.30 |
| pH value of Grade 3 water: 7.1 | |
| Temperature of the Grade 3 water: 20.3 | |

Test Report

No. 28515284

Date: 7th November 2024

Page 7 of 9

Seam Slippage

BS EN ISO 13936-1: 2004 6mm SO

| Sample | Result |
|----------|---|
| Warp | A 6mm seam opening was not found Seam breakdown > 20.0Kg |
| Weft | A 6mm seam opening was not found Seam breakdown > 20.0Kg |
| Remarks: | |

Tearing Strength

BS EN ISO 13937-2: 2000

| Sample | Result |
|--------|----------|
| Warp | 2753.2 g |
| Weft | 2906.2 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:

| ID | Test Parameter | A22 Confirmation Method No. | | | | Result |
|-------|--|-----------------------------|----------|-----------------------------|----------|--------|
| | | Material No. | M001 | Test No. | T001-1 | |
| | | Method No. | Method 1 | Method No. | Method 1 | |
| | | A22 Confirmation Method No. | -- | A22 Confirmation Method No. | -- | |
| 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-Toluylenediamine | 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. |

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515284 | Date: 7 th November 2024 | Page 9 of 9 |
|--------------------|--------------|-------------------------------------|-------------|

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-

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515287 | Date: 6 th November 2024 | Page 1 of 4 |
|--------------------|--------------|-------------------------------------|-------------|

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

| | | |
|---------------------------|---|---|
| Sample Description | : | 8 Wale Heavyweight Corduroy |
| Customer | : | Brisbane Moss; Bridgeroyd Works, Todmorden, OL14 6DF |
| Product type | : | Apparel 3101X 100% Cotton 460 gsm |
| PO Number | : | 13361-27 |
| Colour | : | Fawn/200 |
| Contact person | : | Stephen Newham, Joshua Barker-Lockwood |

Test Performed : Selected test(s) as requested by applicant

* * * *

Sample Receiving Date : 17th October 2024

Testing Period : 17th October 2024 – 6th 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)

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Signed for and on behalf of
TÜV Rheinland UK LTD

Christopher

Digitally signed by
 Christopher Clarke
 Date: 2024.11.06 14:47:16 Z

Chris Clarke
Laboratory Supervisor



8400

Test result is drawn according to the kind and extent of tests performed.
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Test Report

No. 28515287

 Date: 6th November 2024

Page 2 of 4

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 | Dry: 4-5 | Wet: 4 |
| Atmospheric Conditions: 65% RH, 20°C | | | | |
| Conditioning time of sample and rubbing cloth: 4 Hours | | | | |

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515287 | Date: 6 th November 2024 | Page 3 of 4 |
|--------------------|--------------|-------------------------------------|-------------|

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 | 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: 3-4 |
| Sample | |

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-

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515553 | Date: 3 rd February 2025 | Page 1 of 7 |
|--------------------|--------------|-------------------------------------|-------------|

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

Sample Description : 8 Wale Heavy Corduroy
Customer : **Brisbane Moss; Bridgeroyd Works, Todmorden, OL14 6DF**
Product type : Apparel 3101X 100% Cotton
PO Number : 13309-46A
Colour : DK Navy / 986
Contact person : Stephen Newham, Joshua Barker-Lockwood

Test Performed : Selected test(s) as requested by applicant
 * * * * *
Sample Receiving Date : 22nd January 2025
Testing Period : 22nd January 2025 – 3rd February 2025
Test Result(s) : For further details, please refer to the following page(s).

Conclusion:

Test Property – REACH Annex XVII

| | |
|--|------|
| Banned Azo Dyes* | Pass |
| Aromatic Amine Salts* | Pass |
| Dimethyl Fumarate* | Pass |
| Migration of Heavy Metals* | Pass |
| Flame Retardants* | Pass |
| Formaldehyde (EN ISO 14184-1)* | 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: 2025.02.03 10:21:11 Z

Chris Clarke
Laboratory Supervisor

Test result is drawn according to the kind and extent of tests performed.

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

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515553 | Date: 3 rd February 2025 | Page 2 of 7 |
|--------------------|--------------|-------------------------------------|-------------|

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.

| Material No. | Material | Color | Location |
|--------------|----------|-------|------------|
| M001 | Textile | Navy | Woven base |

Results:

1. 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:

| ID | Test Parameter | A22 Confirmation Method No. | | | | |
|-------|--|-----------------------------|----------|------------|------------------------|--------|
| | | Material No. | Test No. | Method No. | Regulatory Requirement | Result |
| | | CAS NO | Unit | RL | | |
| | | | | | | |
| 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-Toluylenediamine | 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. |
| *1 | 4-chloro-o-toluidinium chloride | 3165-93-3 | mg/kg | 5 | 30 | n.d. |
| *4 | 2,4,5-trimethylaniline hydrochloride | 21436-97-5 | mg/kg | 5 | 30 | n.d. |
| *2 | 2-Naphthyl-ammoniumacetate | 553-00-4 | mg/kg | 5 | 30 | n.d. |
| | 2,4-Diaminoanisole sulphate | 39156-41-7 | mg/kg | 5 | 30 | n.d. |

Abbreviation: < = less than

RL = Reporting Limit

ma/ka = milligram per kilogram

Test Report

No. 28515553

 Date: 3rd February 2025

Page 3 of 7

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.

2. 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

3. Dimethyl fumarate

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

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515553 | Date: 3 rd February 2025 | Page 4 of 7 |
|--------------------|--------------|-------------------------------------|-------------|

4. Migration of Heavy Metals

Test Method: All materials except 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

5. Flame Retardants

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

| | | | 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

| | | | |
|--------------------|--------------|-------------------------------------|-------------|
| Test Report | No. 28515553 | Date: 3 rd February 2025 | Page 5 of 7 |
|--------------------|--------------|-------------------------------------|-------------|

6. Formaldehyde (EN ISO 14184-1)

Test Method: EN ISO 14184-1:2011

Test Result:

| Test No. | Material No. | Test Parameter | Unit | RL | Regulatory Requirement | Test Result | Conclusion |
|----------|--------------|----------------------|-------|----|------------------------|-------------|------------|
| T001 | M001 | Formaldehyde content | mg/kg | 10 | 75 | n.d. | Pass |

Abbreviation: < = less than

RL = Reporting Limit

mg/kg = milligram per kilogram

g = gram

7. 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

8. 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

Test Report

No. 28515553

Date: 3rd February 2025

Page 6 of 7

9. 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. | |
| Dibeno[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 | | 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

Sum 10

10. 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

Test Report

No. 28515553

 Date: 3rd February 2025

Page 7 of 7

11. 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/m ² | 1 | < 1 µg/m ² | n.d. | |
| Perfluorooctanoic acid (PFOA) | 335-67-1 | µg/m ² | 1 | < 1 µg/m ² | n.d. | |
| Conclusion | | | | | Pass | |

Abbreviation: < = Less than

RL = Reporting Limit

mg/kg = milligram per kilogram

 µg/m² = microgram per square metre

12. 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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BUREAU VERITAS CONSUMER PRODUCTS
SERVICES**

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| |
|---------------------|
| Test |
| TS EN ISO/IEC 17025 |
| AB-0505-T |
| 72251640468 |
| 06-25 |

TEST REPORT

LAB LOCATION: TURKEY

SERVICE TYPE: Regular

LAB NUMBER: (7225)164-0468

THE DATE OF RECEIPT OF TEST ITEM: June 13, 2025

START DATE FOR TESTING: June 13, 2025

DATE END OF TEST: June 17, 2025

NUMBER OF WORKING DAYS: 3.0

CUSTOMER NAME /

: M CHAPMAN&SONS LTD
(Address: Bridgeroyd Works, Halifax Rd, Todmorden, Lancashire,
OL14 6DF)
(Attn: Paige/Josh)

ADDRESS

: /

CONTACT NAME

: Style Number: /
PO Number: 12571-3

SAMPLE DESCRIPTION

: Woven Panel Sample (3101X)
(Claimed Fiber Content: 100% Cotton)
(Claimed Fabric Weight: /)

COLOUR

: Ecru 2691

**SUBMITTED CARE
INSTRUCTION:**



REASON FOR REVISION

: /



Date Out
(17/06/2025)

Ali Payalan
Senior Client Team Lead

Hasan Altingul
Deputy General Manager Operation
(17/06/2025)

C/N/ ET/SD

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. 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. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from the date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Testing reports without signature are not valid. BV CPS Test Laboratories is not responsible for deviations for the accuracy of the information provided by the customer that may affect the validity of the test results. Test results given in this test report represent only the sample(s) delivered to the laboratory, as sent to BV CPS Test Laboratories by the client/vendor via courier, cargo and/or manual delivery. No sampling is performed by BV CPS Test Laboratories.



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AB-0505-T

72251640468

06-25

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. |

C/N/ET/SD

Document No: gen.f.132
Issue Date: 05.06.2012
Rev. No / Date: 33 / 05.08.2024

Page 2 / 4

Prepared by: Meltem Mat
Controlled by: Sevdenur Can
Approved by: Hasan Altingul



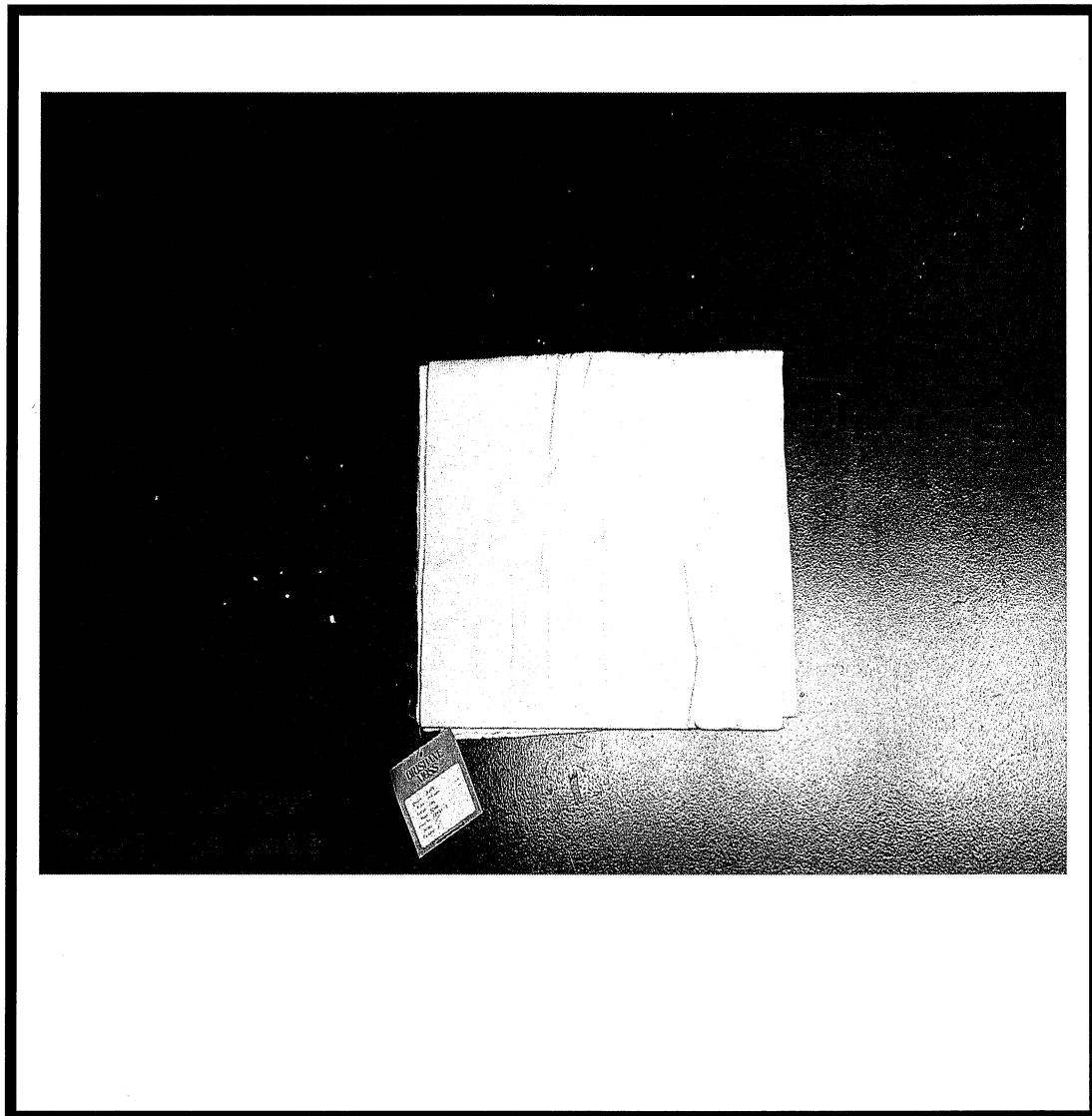
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72251640468

06-25

ORIGINAL
(SAMPLE IMAGE)



C/N/ET/SD

Document No: gen.f.132
Issue Date: 05.06.2012
Rev. No / Date: 33 / 05.08.2024

Page 3 / 4

Prepared by: Meltem Mat
Controlled by: Sevdenur Can
Approved by: Hasan Altingul



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72251640468

06-25

TEST RESULTS

REQUIREMENTS

FLAMMABILITY OF CLOTHING TEXTILES (16 CFR 1610)

SAMPLE DESCRIPTION: WOVEN FABRIC

FIBER CONTENT: 100% COTTON

FABRIC WEIGHT: /

FABRIC SURFACE: RAISED FIBER SURFACE

DIRECTION TO BE TESTED: (FROM PRELIMINARY TEST) **FACE / LENGTHWISE**

AS RECEIVED

AFTER REFURBISHING

| TIME OF FLAME SPREAD (S) | BURN CODE | TIME OF FLAME SPREAD (S) | BURN CODE |
|--------------------------|-----------|--------------------------|-----------|
| 1 | 1 | SF POI | P1 |
| 2 | 2 | SF POI | P2 |
| 3 | 3 | SF POI | P3 |
| 4 | 4 | SF POI | P4 |
| 5 | 5 | SF POI | P5 |

AVG. ____ SECONDS FOR# ____ SPECIMENS

DNI DID NOT IGNITE.

IBE IGNITED, BUT EXTINGUISHED.

SF UC SURFACE FLASH, UNDER THE STOP THREAD, BUT DOES NOT BREAK THE STOP THREAD.

SF PW SURFACE FLASH, PART WAY. NO TIME SHOWN BECAUSE THE SURFACE FLASH DID NOT REACH THE STOP THREAD.

SF POI SURFACE FLASH, AT THE POINT OF IMPINGEMENT ONLY. (EQUIVALENT TO "DID NOT IGNITE" FOR PLAIN SURFACES.)

0.0 SEC. ACTUAL BURN TIME MEASURED AND RECORDED BY THE TIMING DEVICE.

0.0 SF ONLY TIME IN SECONDS, SURFACE FLASH ONLY. NO DAMAGE TO THE BASE FABRIC.

0.0 SFBB TIME IN SECONDS, SURFACE FLASH BASE BURN STARTING AT PLACES OTHER THAN THE POINT OF IMPINGEMENT AS A RESULT OF SURFACE FLASH.

0.0 SFBB POI TIME IN SECONDS, SURFACE FLASH BASE BURN STARTING AT THE POINT OF IMPINGEMENT. THIS RESULT DOES NOT QUALIFY AS A BASE BURN UNDER THE CURRENT INTERPRETATION OF PART OF 16 CFR PART 1610.

0.0 SFBB POI* TIME IN SECONDS, SURFACE FLASH BASE BURN POSSIBLY STARTING AT THE POINT OF IMPINGEMENT. THE ASTERISK (*) IS ACCCOMPANIED BY THE FOLLOWING STATEMENT: "UNABLE TO MAKE ABSOLUTE DETERMINATION AS TO SOURCE OF BASE BURNS." THIS STATEMENT IS ADDED TO THE RESULT OF ANY SPECIMEN IF THERE IS A QUESTION AS TO ORIGIN OF THE BASE BURN.

COMMENTS: PASS CLASS 1, NORMAL FLAMMABILITY OF COMMERCIAL STANDARD 16 CFR 1610, FORMERLY 191-53 OF UNITED STATES FLAMMABILITY FABRIC ACT.

**Indicates does not meet the requirements

APPENDIX A -LIST OF MEASUREMENT UNCERTAINTIES

| TEST NAME | STANDARD NAME | MEASUREMENT UNCERTAINTY |
|-----------------------------------|---------------|-------------------------|
| FLAMMABILITY OF CLOTHING TEXTILES | 16 CFR 1610 | ±7,9 % |

-End of Report-

C/N/ET/SD

Document No: gen.f.132

Issue Date: 05.06.2012

Rev. No / Date: 33 / 05.08.2024

Page 4 / 4

Prepared by: Meltem Mat

Controlled by: Sevdenur Can

Approved by: Hasan Altingul



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Test
TS EN ISO/IEC 17025

AB-0505-T

AB-0505-T

72251500403

06-25

TEST REPORT

LAB LOCATION:TURKEY

SERVICE TYPE: Regular

LAB NUMBER: (7225)150-0403

THE DATE OF RECEIPT OF TEST ITEM: May 30, 2025

START DATE FOR TESTING: May 30, 2025

DATE END OF TEST: June 03, 2025

NUMBER OF WORKING DAYS: 3.0

CUSTOMER NAME /

: M CHAPMAN&SONS LTD
(Address: Bridgeroyd Works, Halifax Rd, Todmorden, Lancashire,
OL14 6DF)
(Attn: Paige/Josh)

ADDRESS

CONTACT NAME

BUYER

: /

SUPPLIER REFERENCE

: Style Number: /
PO Number: 13027

SAMPLE DESCRIPTION

: Woven Panel Sample (3101X)
(Claimed Fiber Content: /)
(Claimed Fabric Weight: /)

COLOUR

: Black 3213

**SUBMITTED CARE
INSTRUCTION:**



REASON FOR REVISION

: /



Date Out
(03/06/2025)

Furkan Yilmaz
Client Team Lead

Hasan Altingul
Deputy General Manager Operation
(03/06/2025)

C/N/ ET/SD

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. 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. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from the date of issuance of this report to notify us of any material error or omission caused by our negligence if you require measurement uncertainty, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Testing reports without signature are not valid. BV CPS Test Laboratories is not responsible for deviations for the accuracy of the information provided by the customer that may affect the validity of the test results. Test results given in this test report represent only the sample(s) delivered to the laboratory, as sent to BV CPS Test Laboratories by the client/vendor via courier, cargo and/or manual delivery. No sampling is performed by BV CPS Test Laboratories.



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| AB-0505-T |
| 72251500403 |
| 06-25 |

SUMMARY OF TEST RESULTS

| TEST PERFORMED | PASS | FAIL | DATA |
|---|------|------|------|
| Abrasion Resistance Of Fabrics By Martindale Method: Specimen Breakdown* | 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. |

REMARK:

If there are questions or concerns on this report, please contact:

+90 212 494 35 35
furkan.yilmaz@bureauveritas.com



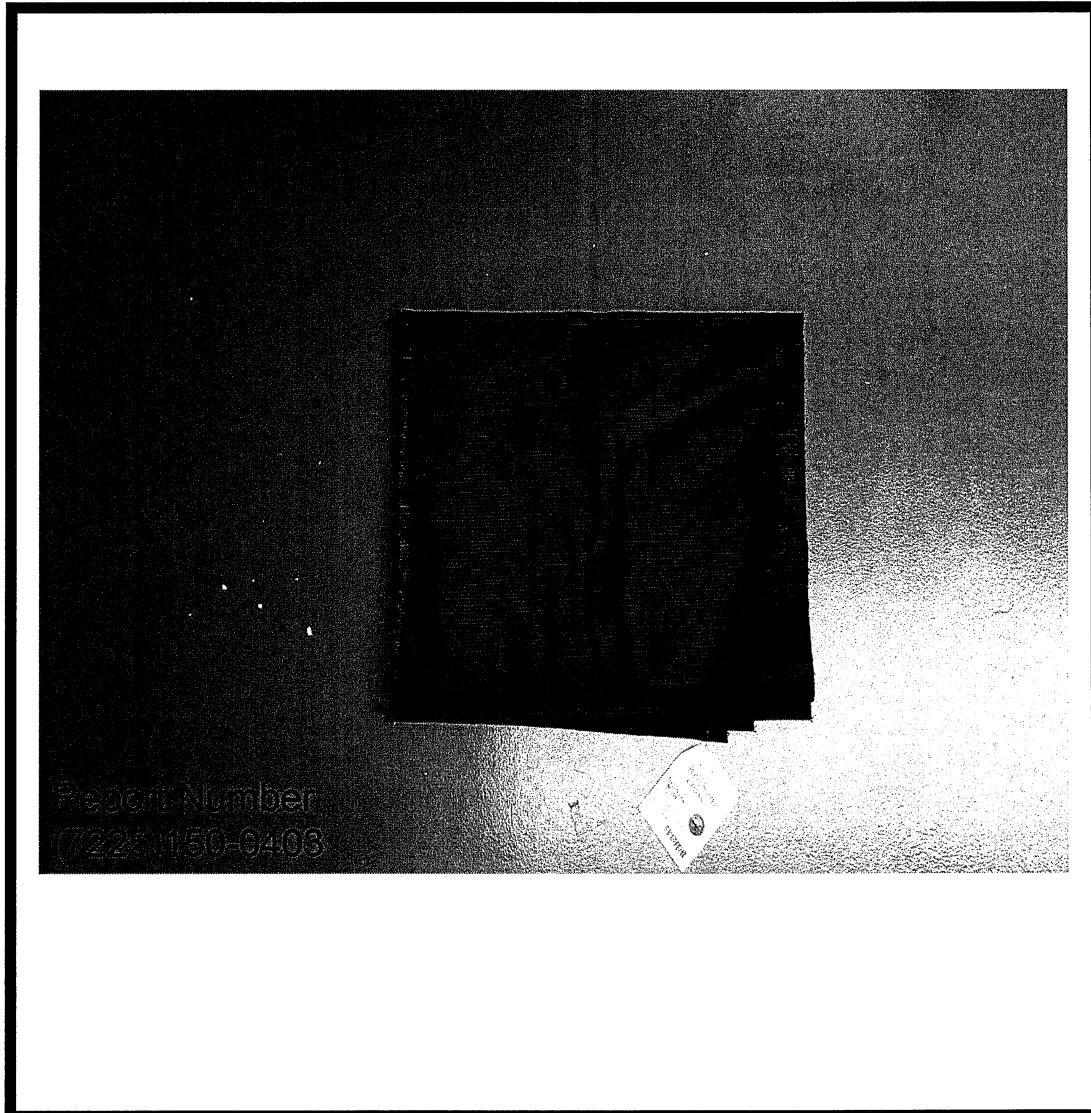
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72251500403

06-25

ORIGINAL
(SAMPLE IMAGE)



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Document No: gen.f.132
Issue Date: 05.06.2012
Rev. No / Date: 33 / 05.08.2024

Page 3 / 4

Prepared by: Meltem Mat
Controlled by: Sevdenu Can
Approved by: Hasan Altingul



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| AB-0505-T |
| 72251500403 |
| 06-25 |

| <u>TEST RESULTS</u> | <u>REQUIREMENTS</u> |
|---------------------|---------------------|
|---------------------|---------------------|

| ABRASION RESISTANCE OF FABRICS BY MARTINDALE METHOD: SPECIMEN BREAKDOWN (BS EN ISO 12947-2 / Pressure Used 795g- 12 kPa) | | | | | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-----------------|
| | Sample 1 | Sample 2 | Sample 3 | Lowest Result | |
| NO. OF RUBS | >40.000 No Breakdown | >40.000 No Breakdown | >40.000 No Breakdown | >40.000 No Breakdown | >40.000 REVS |
| SHADE CHANGE @6000 Rubs | | 4.5 | | | / |

** Indicates below the requirement.

APPENDIX A -LIST OF MEASUREMENT UNCERTAINTIES

| TEST NAME | STANDARD NAME | MEASUREMENT UNCERTAINTY |
|---|-------------------|-------------------------|
| Abrasion Resistance Of Fabrics By Martindale Method: Specimen Breakdown | BS EN ISO 12947-2 | ±4.5% |

-End of Report-

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Page 4 / 4

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