



# ACCREDITATION CERTIFICATE

Issued under the authority of Bangladesh Accreditation Act, 2006  
by Bangladesh Accreditation Board (BAB), Ministry of Industries to

**LabRight Bangladesh Limited**

**Liza Mansion, Block K, House 80, Park Road  
Baridhara, Dhaka, Bangladesh**

This is to certify that this

## **Testing Laboratory**

is accredited in accordance with the international standard

## **ISO/IEC 17025:2017**

in respect of the associated scope, subject to the terms and  
conditions governing the relevant conformity assessment  
body (CAB) accreditation.

Certificate Number : **01.028.15**  
Accreditation Date : **31 August 2015**  
Date of Issuance : **07 October 2018**  
Date of Expiration : **30 August 2021**



  
**Md. Monwarul Islam**  
**Director General**

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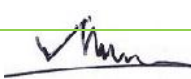
**SCOPE OF ACCREDITATION**

(For Testing Laboratory)

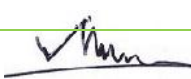
**CAB Name & Address:** **LabRight Bangladesh Limited**  
Liza Mansion, Block # K, House 80, Park Road, Baridhara, Dhaka, Bangladesh

**Accreditation Standard:** ISO/IEC 17025:2017      **Accreditation Date:** 31 August 2015  
**Certificate Number:** 01.028.15      **Issued on:** 07 October 2018  
**Last Amended on:** NA      **Valid until:** 30 August 2021  
**Amendment no :** 00

| S.N.                           | Products/ Materials/ Items of test | Type of tests performed  | Specifications/ Standard test methods/Techniques used   | Range of testing/Limit of detection |
|--------------------------------|------------------------------------|--|---|-------------------------------------|
| <b>Field: Chemical Testing</b> |                                    |  |   |                                     |
| 01.                            | Textile, Garments & Accessories    | Domestic washing and drying procedures for textile testing   | ISO 6330:2012<br>ISO5077:2007<br>ISO3759:2011<br>BS EN ISO 6330:2012<br>BS EN ISO5077:2008<br>BS EN ISO3759:2011<br>DIN EN ISO 6330 - 2013-02<br>DIN EN ISO 5077 - 2008-04<br>DIN EN ISO 3759 - 2011-08<br>GB/T 8628-2013<br>GB/T 8629-2017<br>GB/T 8630-2013 | (-30 to 30) %                       |
| 02.                            | Textile, Garments & Accessories    | Color fastness to domestic and commercial laundering   | ISO 105 C06: 2010<br>BS EN ISO 105 C06: 2010<br>DIN EN ISO 105-C06 - 2010-08<br>GB/T 12490:2014   | 1 to 5 Grade                        |
| 03.                            | Textile, Garments & Accessories    | Color fastness to water  | ISO 105-E01: 2013<br>BS EN ISO 105-E01: 2013<br>DIN EN ISO 105-E01 - 2013-06<br>GB/T 5713-2013  | 1 to 5 Grade                        |
| 04.                            | Textile, Garments & Accessories    | Color fastness to sea water  | ISO 105-E02:2013<br>BS EN ISO 105-E02:2013<br>DIN EN ISO 105-E02 - 2013-06<br>GB/T 5714-2019  | 1 to 5 Grade                        |
| 05                             | Textile, Garments & Accessories    | Color fastness to perspiration   | ISO 105-E04: 2013<br>BS EN ISO 105-E04: 2013<br>DIN EN ISO 105-E04 - 2013-08<br>GB/T 3922: 2013   | 1 to 5 Grade                        |
| 06                             | Textile, Garments & Accessories    | Color fastness rubbing   | ISO 105 – X12: 2016<br>BS EN ISO 105 – X12: 2016<br>DIN EN ISO 105 –X12: 2016-11<br>GB/T 3920-2008  | 1 to 5 Grade                        |
| 07                             | Textile, Garments & Accessories    | Color fastness to light wetted with perspiration   | ISO 105 – B07: 2009<br>BS EN ISO 105 – B07: 2009<br>DIN EN ISO 105 – B07: 2009  | 1 to 5 Grade                        |
| 08                             | Textile, Garments & Accessories    | Colour fastness to domestic and commercial laundering — oxidative bleach response using a non-phosphate reference detergent incorporating a low temperature bleach activator | ISO 105 C09:2001 /Amd 1:2003<br>BS EN ISO 105 C09:2003<br>DIN EN ISO 105 C09:2007-10  | 1 to 5 Grade                        |

  
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| 09 | Textile, Garments & Accessories          | Determination of phenolic yellowing   | ISO 105 -X18: 2007<br>BS EN ISO 105 -X18: 2007<br>DIN EN ISO 105 -X18: 2007-12  | 1 to 5 Grade     |
| 10 | Textile, leather. Garments & Accessories | Determination of aromatic amines derived from azo coloring agent in textile samples –<br>method 1: determination of azo coloring agents with extraction and without extraction.<br>1) 2,4-Diaminotoluene<br>2) 2,4-Diaminoanisole<br>3) o-Toluidine<br>4) 2,4-dimethylbenzenamine (2,4-Xylidine)<br>5) O-anisidine<br>6) 4-Chloroaniline or P-Chloroaniline<br>7) p-cresidine<br>8) 2,4,5-Trimethylaniline<br>9) 4-chloro-o-toluidine<br>10) 2-naphthylamine<br>11) 2-amino-4-nitrotoluene<br>12) 4-aminodiphenyl<br>13) 4,4'-Oxydianiline<br>14) Benzidine<br>15) 4,4'-diaminodiphenylmethane<br>16) o-aminoazotoluene<br>17) 3,3'-dimethyl-4,4'-diaminodiphenylmethane<br>18) 3,3'-dimethylbenzidine<br>19) 4,4,-thiodianiline<br>20) Aniline<br>21) 1,4 Phenyldiamine<br>22) 3,3,-dichlorobenzidine<br>23) 4,4'-Methylene-bis(2-chloroaniline)<br>24) 3,3'-dimethoxybenzidine<br>25) 4-Aminoazobenzene | ISO 14362-1:2017<br>ISO 14362-3:2017<br>ISO 17234-1:2015<br>ISO 17234-2:2011<br>BS EN ISO 14362-1:2017<br>BS EN ISO 14362-3:2017<br>BS EN ISO 17234-1:2015<br>BS EN ISO 17234-2:2011<br>DIN EN ISO 14362-1:2017-05<br>DIN EN ISO 14362-3:2017-05<br>DIN EN ISO 17234-1:2015-07<br>DIN EN ISO 17234-2:2011-06<br>GB/T 17592-2011<br>GB/T 19942-2005<br>GB/T 23344-2009 | 5 – 50000 mg/kg  |
| 11 | Textile, Garments & Accessories          | Determination of chlorinated organic carriers in textile products (chlorinated benzene and toluene (COC) -<br>1) 2-Chlorotoluene<br>2) 3-Chlorotoluene<br>3) 4-Chlorotoluene<br>4) 1,3-Dichlorobenzene<br>5) 1,4-Dichlorobenzene<br>6) 1,2-Dichlorobenzene<br>7) 2,4-Dichlorotoluene<br>8) 2,5-Dichlorotoluene<br>9) 2,6-Dichlorotoluene<br>10) 1,3,5-Trichlorobenzene<br>11) 2,3-Dichlorotoluene<br>12) 3,4-Dichlorotoluene<br>13) 1,2,4-Trichlorobenzene<br>14) 1,2,3-Trichlorobenzene  | DIN EN 17137:2019-02  | 0.1 – 1000 mg/kg |

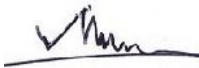

  
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|    |  | 15) 2,3,6-Trichlorotoluene   |   |                    |
|    |  | 16) 2,4,5-Trichlorotoluene   |   |                    |
|    |  | 17) 1,2,3,5-Tetrachlorobenzene   |   |                    |
|    |  | 18) 1,2,4,5-Tetrachlorobenzene   |   |                    |
|    |  | 19) 1,2,3,4-Tetrachlorobenzene   |   |                    |
|    |  | 20) Pentachlorobenzene   |   |                    |
|    |  | 21) 2,3,4,5,6-Pentachlorotoluene   |   |                    |
|    |  | 22) Hexachlorobenzene  |   |                    |
| 12 | Textile, Leather, Garments & Accessories | Determination of phthalate in textile                                      | CPSC-CH-C1001-09.3 - 2010<br>CPSC-CH-C1001-09.4 - 2018<br>ISO 14389:2014<br>ISO/TS 16181:2011<br>BS EN ISO 14389:2014<br>BS EN 15777:2009<br>DIN EN ISO 14389:2014-10 | 350 -500,000 mg/kg |
|    |  | 1) Phthalic acid, bis-isononyl ester (DINP)                                |   |                    |
|    |  | 2) Di-n-octyl phthalate (DNOP)   |   |                    |
|    |  | 3) Phthalic acid, bis-2-ethylhexyl ester (DEHP)                            |   |                    |
|    |  | 4) Di-isodecyl phthalate (DIDP)  |   |                    |
|    |  | 5) Benzyl Butyl phthalate (BBP)  |   |                    |
|    |  | 6) Di-Butyl Phthalate (DBP)  |   |                    |
|    |  | 7) Di-iso-butyl phthalate (DIBP)   |   |                    |
|    |  | 8) Di-C6-8-branched alkylphthalates (DIHP)                                 |   |                    |
|    |  | 9) Di-C7-11-branched alkylphthalates (DHNUP)                               |   |                    |
|    |  | 10) Phthalic acid, bis-n-heptyl ester (DHEPP)                              |   |                    |
|    |  | 11) Di-n-hexylphthalate (DHxP)   |   |                    |
|    |  | 12) Diundecyl phthalate (DUP)  |   |                    |
|    |  | 13) Di-(2-methoxyethyl)-phthalate (DMEP)                                   |   |                    |
|    |  | 14) Dipentyl phthalate (DPP)   |   |                    |
|    |  | 15) Phthalic acid, bis-nonyl ester (DNP)                                   |   |                    |
|    |  | 16) Phthalic acid, bis-ethyl ester (DEP)                                   |   |                    |
|    |  | 17) Phthalic acid, bis-cyclohexyl ester (DCHP)                             |   |                    |
|    |  | 18) Phthalic acid, bis-iso-hexyl ester (mixture of isomer)(DIHxP)          |   |                    |
|    |  | 19) Phthalic acid, bis-iso-octyl ester(DIOP)                               |   |                    |
|    |  | 20) Phthalic acid, bis-propyl ester(DPRP)                                  |   |                    |
|    |  | 21) Di-iso-hexyl phthalate-2(DIHxP)  |   |                    |
|    |  | 22) 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters<br>C6-C10=(CDnHP + |   |                    |

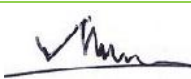
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CDIHxP + C DIHpP +  
CDEHP + CDNOP + C  
DINP + CDIDP)  
23) 1,2-benzene dicarboxylic  
acid, mixed decyl and  
hexyl and octyl diesters  
with  $\geq 0.3$  % of dihexyl  
phthalate

|    |  |   |   |   |
|----|--|---|---|---|
| 13 | Textile,<br>Garments &<br>Accessories                                    | Determination of free &<br>released formaldehyde  | ISO 14184-1:2011<br>ISO 14184-2:2011<br>ISO 17226-1:2018<br>ISO 17226-2:2018<br>BS EN ISO 14184-1:2011<br>BS EN ISO 14184-2:2011<br>BS EN ISO 17226-1:2019<br>BS EN ISO 17226-2:2019<br>BS EN 717-3:1996<br>BS EN 1541:2001<br>DIN EN ISO 14184-1:2011-12<br>DIN EN ISO 14184-2:2011-12<br>DIN EN ISO 17226-1:2019-04<br>DIN EN ISO 17226-2:2019-04<br>DIN EN 717-3:1996-05<br>DIN EN 1541:2001-07<br>GB/T 19941:2005<br>GB/T 2912.1:2009<br>GB/T 2912.2:2009<br>GB/T 2912.3:2009 | 15 – 10,000 mg/kg   |
| 14 | Textile,<br>Garments &<br>Accessories                                    | Determination of pHaqueous<br>extract in textile  | ISO 3071:2005<br>BS EN ISO 3071:2006<br>DIN EN ISO 3071 - 2006-05<br>GB/T 7573:2009   | 1 to 14   |
|    | Leather & its<br>accessories,<br>components<br>materials and<br>Garments | Determination of pHaqueous<br>extract in leather  | ISO 4045:2018<br>BS EN ISO 4045:2018<br>DIN EN ISO 4045:2018  | 1 to 14   |
| 15 | Textile,<br>Garments &<br>Accessories                                    | Extractable Heavy metals and<br>Total Heavy Metals<br>1) Cadmium (Cd)<br>2) Lead; (Pb)<br>3) Nickel; (Ni)<br>4) Chrome (Cr)<br>5) Copper (Cu)<br>6) Antimony (Sb)<br>7) Arsenic (As)<br>8) Cobalt (Co)<br>9) Mercury (Hg)<br>10) Selenium (Se)<br>11) Barium (Ba) | ISO 17072-1:2019<br>ISO 17072-2:2019<br>BS EN ISO 17072-1:2019<br>BS EN ISO 17072-2:2019<br>BS EN 16711-1<br>BS EN 16711-2<br>DIN EN ISO 17072-1:2019-07<br>DIN EN ISO 17072-2:2019-07<br>DIN EN 16711-1:2016-02<br>DIN EN 16711-2:2016-02<br>DIN 54233-3-2010-02   | Cd: 0.05mg/kg &<br>above<br>Pb: 0.10mg/kg &<br>above<br>Ni: 0.50mg/kg &<br>above<br>Cr: 0.51mg/kg &<br>above<br>Cu: 1.75mg/kg &<br>above<br>Sb: 2.11mg/kg<br>&above<br>As: 0.10mg/kg &<br>above<br>Co: 0.50mg/kg &<br>above<br>Hg: 0.01mg/kg &<br>above |
| 16 | Textile,<br>Garments &   | Migration of heavy metals<br>(toxicity)   | BS EN 71-3:2019   | B: 153.5 mg/kg &<br>above   |

  
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|-------------|--|---|---|--|
| Accessories | 1) Boron (B)<br>2) Aluminum (Al)<br>3) Manganese (Mn)<br>4) Nickel (Ni)<br>5) Cupper (Cu)<br>6) Zinc (Zn)<br>7) Strontium (Sr)<br>8) Barium (Ba)<br>9) Cobalt (Co)<br>10) Selenium (Se)<br>11) Tin (Sn)<br>12) Antimony (Sb)<br>13) Lead (Pb)<br>14) Chromium (Cr)<br>15) Arsenic (As)<br>16) Cadmium (Cd)<br>17) Mercury (Hg) | Al: 176 mg/kg & above<br>Mn: 153.8 mg/kg & above<br>Ni: 191.3 mg/kg & above<br>Cu: 99.4 mg/kg & above<br>Zn: 113.6 mg/kg & above<br>Sr: 42.4 mg/kg & above<br>Ba: 93.5 mg/kg & above<br>Co: 13.2mg/kg & above<br>Se: 20.8mg/kg & above<br>Sn: 19.3mg/kg & above<br>Sb: 65.1mg/kg & above<br>Pb: 14.5mg/kg & above<br>Cr:1.5mg/kg & above<br>As: 2.6mg/kg & above<br>Cd: 0.9mg/kg & above<br>Hg: 1.5mg/kg & above. |   |  |
| 17          | Textile, Garments & Accessories  | Cadmium determination   | BS EN 1122:2001<br>EN 1122:2001<br>USEPA 3052:1996<br>CPSC-CH-E1004-11:2011<br>GB/T 30157:2013        | 11.5 mg/kg & above                               |
| 18          | Textile, Garments & Accessories  | Determination of nickel release from products intended to come into direct and prolonged contact with skin.   | BS EN 1811:2011 + A1:2015<br>BS EN 12472:2005+ A1:2009<br>DIN EN 1811:2015-10<br>DIN EN 12472:2009-09 | 0.15 – 500 $\mu\text{g}/\text{cm}^2/\text{week}$ |
| 19          | Textile, Garments & Accessories  | Determination of nickel in metal samples - spot test  | PD CR 12471:2002  | Qualitative                                      |
| 20          | Textile, Garments & Accessories  | Determination of organic tin compounds<br>1) Dibutyltin dichloride (DBT)<br>2) Tributyltin chloride (TBTC)<br>3) Di-n-octyltin-dichloride (DOT)<br>4) Triphenyltin chloride (Fentin chloride) (TPhT)<br>5) n-Octyltin-trichloride (MOT)   | ISO/TS 16179:2012   | 0.03 – 1000 mg/kg                                |


  
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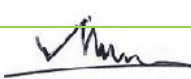
- 6) Di-n-propyltin-dichloride (DPrT)
- 7) Diphenyltin-dichloride (DPhT)
- 8) Tricyclohexyltin chloride (TCHT)
- 9) Tetrabutyltin (TeBT)
- 10) n-Butyltin trichloride (MBT)
- 11) Dimethyltin-dichloride (DMT)
- 12) Methyltin Trichloride (MMT)
- 13) Phenyltin Trichloride (MPhT)
- 14) Tetraethyltin (TeET)
- 15) Trimethyltin Chloride (TMT)
- 16) Tripropyltin Chloride (TPrT)
- 17) Trioctyltin Chloride (TOT)
- 18) Di-n-heptyltin Dichloride (DHpT)

|    |                                 |  |  |                   |
|----|---------------------------------|--|--|-------------------|
| 21 | Textile, Garments & Accessories | Determination of alkylphenol ethoxylate (APEO) in textile samples.<br><ol style="list-style-type: none"> <li>1) Igepal CO-630 (NPEO)</li> <li>2) Triton X-100 (OPEO)</li> <li>3) 4-n-octylphenol (4-OP)</li> <li>4) 4-n-nonylphenol (4-NP)</li> <li>5) 4-n-Amylphenol</li> <li>6) 4-tert-Amylphenol</li> <li>7) 4-Heptylphenol</li> </ol>  | method ethoxylate<br>ISO 18254 -1:2016<br>ISO 18218-1:2015<br>BS EN ISO 18254-1:2016<br>BS EN ISO 18218-1:2015<br>DIN EN ISO 18254-1:2016-09<br>DIN EN ISO 18218-1:2015-11 | 2 - 10,000 mg/kg  |
| 22 | Textile, Garments & Accessories | Determination of Perfluorinated compounds<br><ol style="list-style-type: none"> <li>1) Perfluorooctanic acid (PFOA)</li> <li>2) Perfluorooctane sulfonic acid (PFOS)</li> <li>3) Perfluoro-n-undecanoic Acid (PFUdA)</li> <li>4) Perfluoro-n-dodecanoic Acid (PFDoA)</li> <li>5) Perfluoro-n-tridecanoic Acid (PFTTrDA)</li> <li>6) Perfluoro-n-tetradecanoic Acid (PFTeDA)</li> <li>7) Sulfuramide (N-Et-FOSA)</li> <li>8) Perfluorobutanesulfonic acid (PFBS)</li> <li>9) Perfluorononanoic acid (PFNA)</li> <li>10) Perfluorooctane sulfonyl fluoride (PFOSF)</li> <li>11) Perfluoropentanoic acid (PFPeA)</li> <li>12) Perfluorohexanoic acid</li> </ol> | CEN-TS-15968:2010  | 0.01 – 1000 mg/kg |

  
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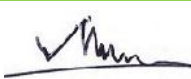
- (PFHxA)
- 13) Perfluoroheptanoic acid (PFHpA)
- 14) Perfluorooctanesulfonamide (PFOSA)
- 15) Heptafluorobutyric acid (PFBA)
- 16) N-Ethyl-N-(2-Hydroxyethyl)perfluorooctane (N-Et-FOSE)
- 17) N-Methylperfluorooctanesulfonamide (N-Me-FOSA)
- 18) Perfluorohexanesulfonic acid (PFHxS)
- 19) Perfluoroheptanesulfonic acid (PFHpS)
- 20) 4,4,5,5,6,6,7,7,8,8,9,10,10,11,11,11-Heptadecafluoroundecanoic Acid (4HPFUnA)
- 21) 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctane-1-sulphonic Acid (1H, 1H, 2H, 2H PFOS)
- 22) N-Methylperfluorooctanesulfonamidoethanol (N-Me-FOSE)
- 23) Perfluorodecane Sulfonic Acid (PFDS)
- 24) Perfluoro-3,7-dimethyloctanoic acid (P-3,7-DMOA)
- 25) Perfluoro-n-decanoic acid (PFDA)
- 26) 7H-Dodecafluoroheptanoic Acid (HPFHpA)

|    |  |  |  |                  |
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| 23 | Textile, Leather, Garments & Accessories | Determination of Dimethyl fumarate (DMFu)  | ISO-TS-16186:2012  | 0.1 – 500 mg/kg  |
| 24 | Textile, Leather, Garments & Accessories | Determination of dimethylformamide (DMFa)  | ISO/TS 16189:2013)   | 5 – 100 mg/kg    |
| 25 | Leather, Garments & Accessories          | Determination of Hexavalent Chromium   | ISO 4044:2017<br>ISO 17075-1:2017<br>BS EN ISO 4044:2017<br>BS EN ISO 17075-1:2017<br>DIN EN ISO 4044 - 2017-05<br>DIN EN ISO 17075-1:2017-05<br>DIN 53314 - 1996-04 | 0.5 – 5000 mg/kg |
| 26 | Textile, Garments & Accessories          | Determination of allergen and cancerogenic dye stuffs.<br>1) Acid Red 26<br>2) Basic Red 9<br>3) Basic Violet 14<br>4) Direct Black 38 | DIN 54231:2005-11  | 1 – 5000 mg/kg   |

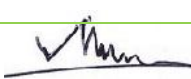
  
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|----|---------------------------------|--|--|------------------|
|    |                                 | 5) Direct Blue 6   |  |                  |
|    |                                 | 6) Direct Red 28   |  |                  |
|    |                                 | 7) Disperse Blue 1   |  |                  |
|    |                                 | 8) Disperse Orange 11  |  |                  |
|    |                                 | 9) Disperse Yellow 3   |  |                  |
|    |                                 | 10) Disperse Blue 1  |  |                  |
|    |                                 | 11) Disperse Blue 3  |  |                  |
|    |                                 | 12) Disperse Blue 7  |  |                  |
|    |                                 | 13) Disperse Blue 26   |  |                  |
|    |                                 | 14) Disperse Blue 35   |  |                  |
|    |                                 | 15) Disperse Blue 102  |  |                  |
|    |                                 | 16) Disperse Blue 106  |  |                  |
|    |                                 | 17) Disperse Blue 124  |  |                  |
|    |                                 | 18) Disperse Orange 1  |  |                  |
|    |                                 | 19) Disperse Orange 3  |  |                  |
|    |                                 | 20) Disperse Orange 37/76  |  |                  |
|    |                                 | 21) Disperse Red 1   |  |                  |
|    |                                 | 22) Disperse Red 11  |  |                  |
|    |                                 | 23) Disperse Red 17  |  |                  |
|    |                                 | 24) Disperse Yellow 1  |  |                  |
|    |                                 | 25) Disperse Yellow 3  |  |                  |
|    |                                 | 26) Disperse Yellow 9  |  |                  |
|    |                                 | 27) Disperse Yellow 39   |  |                  |
|    |                                 | 28) Disperse Yellow 49   |  |                  |
|    |                                 | 29) Disperse Brown 1   |  |                  |
|    |                                 | 30) Disperse Orange 149  |  |                  |
|    |                                 | 31) Disperse Yellow 23   |  |                  |
| 27 | Textile, Garments & Accessories | Heavy metal determination in packaging materials<br>1) Lead (Pb)<br>2) Cadmium (Cd)<br>3) Mercury (Hg)<br>4) Chromium (Cr)   | PD CR 13695-1:2000,<br>IEC 62321:2008  | 10 – 5000 mg/kg  |
| 28 | Textile, Garments & Accessories | Determination of total lead.   | ASTM – F963<br>16 CFR part 1303:2013,<br>CPSC-CH-E1003-09.1:2011<br>CPSC-CH-E1002-8.1:2011<br>CPSC-CH-E1001-08.3:2012<br>GB/T 30157:2013 | 16 -10,000 mg/kg |
| 29 |                                 | Determination of polycyclic aromatic hydrocarbones (PAH)<br>1) Benzo(j)fluoranthene (BjFA)<br>2) Benzo(a)pyrene (BaP)<br>3) Benzo(e)pyrene (BeP)<br>4) Benzo(a)anthracene (BaA)<br>5) Chrysene (CHR)<br>6) Benzo(b)fluoranthene (BbFA)<br>7) Benzo(k)fluorante (BkFA)<br>8) Dibenzo(a,h)anthracene (DBAhA)<br>9) Acenaphtene<br>10) Acenaphthylene<br>11) Benzo(ghi)perylene | AfPS GS 2014:01<br>ZEK-01.2-08:2018<br>ISO/TS 16190:2013<br>ISO 18287:2006   | 0.1 – 1000 mg/kg |

  
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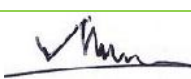
|    |                                 |   |   |               |
|----|---------------------------------|---|---|---------------|
|    |                                 | 12) Fluoranthene  |   |               |
|    |                                 | 13) Fluorene  |   |               |
|    |                                 | 14) Indeno (1,2,3-cd)pyrene   |   |               |
|    |                                 | 15) Naphtalene  |   |               |
|    |                                 | 16) Phenanthrene  |   |               |
|    |                                 | 17) Pyrene  |   |               |
|    |                                 | 18) Cyclopenta(c,d)pyrene   |   |               |
|    |                                 | 19) Dibenzo(a,e)pyrene  |   |               |
|    |                                 | 20) Dibenzo(a,h)pyrene  |   |               |
|    |                                 | 21) Dibenzo(a,i)pyrene  |   |               |
|    |                                 | 22) Dibenzo(a,l)pyrene  |   |               |
|    |                                 | 23) 1-Methylpyrene  |   |               |
|    |                                 | 24) Anthracene  |   |               |
| 30 | Textile, Garments & Accessories | Determination of spirality after laundering – on woven and knitted fabrics                            | ISO 16322-2: 2005 / Cor 1: 2007 Method-B & Method C   | (-30 to 30) % |
| 31 | Textile, Garments & Accessories | Color fastness to chlorinated water (swimming-pool water)   | ISO 105 - E03:2010<br>BS EN ISO 105 - E03:2010<br>DIN EN ISO 105-E03 - 2010-08<br>GB/T 8433-2013  | 1 to 5 Grade  |
| 32 | Textile, Garments & Accessories | Metallic accessories – corrosion resistance   | ISO 22775: 2004 Method 2<br>BS 4162:1983 Section 10<br>BS EN ISO 22775: 2004 Method 2<br>DIN EN ISO 22775 - 2005-03 Method 2  | 1 to 5 Grade  |
| 33 | Textile, Garments & Accessories | Determination of the colour fastness of articles for common use – Part 1: Test with artificial saliva | DIN 53160-1:2010<br>GB/T 18886-2002   | 1 to 5 Grade  |
| 34 | Textile, Garments & Accessories | Determination of the colour fastness of articles for common use – Part 2: Test with artificial sweat  | DIN-53160-2:2010  | 1 to 5 Grade  |
| 35 | Textile, Garments & Accessories | Determination colour fastness to artificial weathering: Xenon arc fading lamp test.                   | ISO 105 B04:1994<br>BS EN ISO B04:1997<br>DIN EN ISO 105-B04  | 1 to 5 Grade  |
| 36 | Textile, Garments & Accessories | Fiber Analysis  | ISO 1833-1:2006<br>ISO 1833-2:2006<br>ISO 1833-4:2017<br>ISO 1833-6:2007<br>ISO 1833-7:2017<br>ISO 1833-11:2017<br>ISO 1833-12:2006<br>AATCC 20:2013<br>AATCC 20A:2017<br>ASTM D629 -15<br>EU 1007 / 2011<br>GB/T 2910.1-2009<br>GB/T 2910.2-2009<br>GB/T 2910.4-2009<br>GB/T 2910.6-2009<br>GB/T 2910.7-2009 | 0.1 to 100%   |


  
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GB/T 2910.11-2009  
 GB/T 2910.12-2009


**Field: Mechanical Testing**

|     |                                       |  |  |                  |
|-----|---------------------------------------|--|--|------------------|
| 01. | Textile,<br>Garments &<br>Accessories | Determination of tear strength– ballistic pendulum method  | ISO 13937-1:2000 / Cor 1:2004<br>BSENISO13937-1:2000<br>DIN EN ISO 13937-1:2000-06<br>ISO 4674-2:1998<br>ASTM D 1424   | 100gf – 6530gf   |
|     |                                       | Tearing strength of fabrics (Single rip)   | ISO 13937-2:2000<br>ISO 13937-3:2000<br>BS EN ISO 13937-2:2000<br>BS EN ISO 13937-3:2000<br>DIN EN ISO 13937-2:2000-06<br>DIN EN ISO 13937-3:2000-06<br>ASTM 2261-13 (2017) e1   | 100gf – 6530gf   |
|     |                                       | Tearing strength of fabrics (Double tear)  | ISO 13937-4:2000<br>BS EN ISO 13937-4:2000<br>DIN EN ISO 13937-4:2000-06   | 100gf – 6530gf   |
| 02. | Textile,<br>Garments &<br>Accessories | Determination of bursting strength and bursting distention by the pneumatic methods                    | ISO 13938-2:2019<br>BS EN ISO 13938-2:2019<br>DIN EN ISO 13938-2:2019<br>ASTM D 3786/D 3786M   | 1 to 1000 kPa    |
| 03. | Textile,<br>Garments &<br>Accessories | Determination of abrasion resistance of fabrics Martindale methods                                     | ISO 12947-1:1998/ Cor 1:2002<br>ISO 12947-2: 2016<br>ISO 12947-3:1998/ Cor 1:2002<br>ISO 12947-4:1998/Cor 1:2002<br>BS EN ISO 12947-1: 1998<br>BS EN ISO 12947-2: 2016<br>BS EN ISO 12947-3: 1998<br>BS EN ISO 12947-4: 1998<br>DIN EN ISO 12947-1:2007-04<br>DIN EN ISO 12947-2:2017-03<br>DIN EN ISO 12947-3: 2007-04<br>DIN EN ISO 12947-4: 2007-04<br>ASTM D4966-12 (2016) | 1 to Grade 5     |
| 04. | Textile,<br>Garments &<br>Accessories | Determination of maximum force – grab method   | ISO 13934-2:2014<br>BS EN ISO 13934-2:2014<br>DIN EN ISO 13934-2:2014<br>ISO 1421:2016<br>ASTM D 5034-09 (2017)  | 1kgf to 300kgf   |
|     |                                       | Determination of maximum force and elongation at maximum force using the strip method                  | ISO 13934-1:2013<br>BS EN ISO 13934-1:2013<br>DIN EN ISO 13934-1:2013-08<br>ASTM D5035-11 (2019)   | 1kgf to 300kgf   |
| 05  | Textile,<br>Garments &<br>Accessories | Woven fabrics- determination of mass per unit length and mass per unit area                            | BS 2471:2005<br>ISO 3801:1977<br>BS EN 12127:1998<br>DIN EN 12127:1997-12<br>ASTM D 3776/D 3776M -09a (2017)   | 0.1 – 20,000 GSM |
| 06  | Textile,<br>Garments &<br>Accessories | Determination of slippage resistance of yarns at a seam in woven fabrics:<br>Fixed seam opening method | ISO 13936-1:2004<br>BS EN ISO 13936-1:2004<br>DIN EN ISO 13936-1:2004-07   | 1kgf to 20kgf    |
|     |                                       | Determination of the slippage resistance of yarns at a seam  | ISO 13936-2:2004<br>BS EN ISO 13936-2:2004   | 1kgf to 20kgf    |

  
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|    |                                 |   |  |                  |
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|    |                                 | in woven fabrics – fixed load method  | DIN EN ISO 13936-2:2004-07   |                  |
| 07 | Textile, Garments & Accessories | Determination of fabric propensity to surface fuzzing and to pilling – modified Martindale method | ISO 12945-2:2000<br>BS EN ISO 12945-2:2000<br>DIN EN ISO 12945-2:2000-11<br>ASTM D 4970/D 4970M – 16e3 | 1 to 5 Grade     |
| 08 | Textile, Garments & Accessories | Determination of fabric propensity to surface fuzzing and to pilling – Pilling box method.        | ISO 12945 –1:2000<br>BS EN ISO 12945 –1:2001<br>DIN EN ISO 12945-1:2001-08                             | 1 to 5 Grade     |
| 09 | Textile, Garments & Accessories | Color fastness to artificial light: xenon arc fading lamp test                                    | ISO 105-B02:2014<br>BS EN ISO 105-B02:2014<br>DIN EN ISO 105-B02:2014-11                               | 1 to 5 Grade     |
| 10 | Textile, Garments & Accessories | Zipper physical tests   | BS EN 16732:2015<br>Incorporating corrigendum July 2017<br>ASTM D2061-07 (2013)                        | 1N to 3000 N     |
| 11 | Textile, Garments & Accessories | Torque test   | BS EN 71-1:2014+A1:2018 Part 8.3   | Qualitative      |
| 12 | Textile, Garments & Accessories | Determination of maximum force to seam rupture using the strip method                             | ISO 13935-1:2014<br>BS EN ISO 13935-1:2014<br>DIN EN ISO 13935-1:2014<br>ASTM D1683/ D1683M-17 (2018)  | 1 kgf to 300 kgf |
|    |                                 | Determination of maximum force to seam rupture using the grab method                              | ISO 13935-2:2014<br>BS EN ISO 13935-2:2014<br>DIN EN ISO 13935-2:2014                                  | 1 kgf to 300 kgf |
| 13 | Textile, Garments & Accessories | Test procedure-Determination of fabrics' elasticity- strip test                                   | EN 14704-1:2005<br>BS EN 14704-1:2005;<br>DIN EN 14704-1:2005-07                                       | 1 to 300%        |
| 14 | Textile, Garments & Accessories | Determination of elasticity of fabrics - Narrow Fabric  | BS EN 14704-3: 2006<br>DIN EN 14704-3:2007-03  | 1 to 300%        |
| 15 | Textile, Garments & Accessories | Determination of button strength test   | BS 4162: 1983 Section 4<br>BS 7907:2007  | 1 to 500N        |

\*\*\*END\*\*\*

  
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