

**Laboratory** Regional Laboratory, Textiles Committee, Sona Complex, 3<sup>rd</sup> Floor,  
G.T. Road, Miller Ganj, Ludhiana, Punjab

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** TC-6218

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**Validity** 04.09.2017 to 03.09.2019

Last Amended on --

| Sl. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-----|----------------------------|-------------------------|---|--|
|-----|----------------------------|-------------------------|---|--|

**CHEMICAL TESTING**

| <b>I. TEXTILES (WOVEN, KNITTED &amp; NON WOVEN)</b> |                 |   |  |                               |
|---|-----------------|---|--|-------------------------------|
| 1.  | <b>Textiles</b> | Moisture content                            | IS-199-1989  | 0.1% to 50%                   |
|   |                 | Identification of fibres                    | IS 667:1981<br>AATCC 20:2013   | Qualitative                   |
|   |                 | Quantitative chemical analysis of mixtures: | IS 9889:1988<br>(Silk & wool)  | 0.1% to 100%                  |
|   |                 |   | IS 1889:1979 (Part4)<br>(Cotton + Viscose)                               |                               |
|   |                 |   | IS 6503:1988<br>IS:2005:1988<br>(Nylon + Others)                         |                               |
|   |                 |   | IS 2006:1988<br>(Wool + Others)  |                               |
|   |                 |   | IS 3416- part I:- 1988,<br>(Polyester + Cotton)<br>(Polyester + Viscose) |                               |
|   |                 |   | IS 3421:1988<br>(Acrylic + Others)<br>-DMF method                        |                               |
|   |                 |   | IS:9896-1981<br>(Polyolefin + Others)                                    |                               |
|   |                 |   | AATCC 20-A-2014  |                               |
|   |                 | Colour Fastness to Washing Test I           | IS /ISO 105 C10 A-1- 2006<br>ISO 105 C10 A-1- 2006                       | Qualitative<br>(Grade 1 to 5) |
|   |                 | Test II                                     | IS/ISO 105 C10 B-2 –2006<br>ISO 105 C10 B-2 –2006                        |                               |
|   |                 | Test III                                    | IS/ISO 105 C10 C-3 –2006<br>ISO 105 C10 C-3 –2006                        |                               |
|   |                 | Test IV                                     | IS /ISO 105-C10 D-4-2006<br>ISO 105-C10 D-4-2006                         |                               |

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|     |   | Test V   | IS/ISO 105-C10 E-5-2006<br>ISO 105-C10 E-5-2006  |   |
|     |   | Colour Fastness to Commercial Laundering                                     | ISO 105-C06-2010<br>AATCC 61-2013  | Qualitative<br>(Grade 1 to 5)                     |
|     |   | Colour Fastness to Dry Cleaning  | IS 4802 – 1988<br>ISO 105- D01–2010<br>AATCC 132-2013  | Qualitative<br>(Grade 1 to 5)                     |
|     |   | pH of aqueous extracts   | IS: 1390:1983<br>AATCC-81:2012<br>ISO 3071 – 2005  | 1 to 14   |
|     |   | Colour Fastness to Rubbing /Crocking   | IS 766:1988<br>AATCC 8-:2013<br>ISO 105 - X 12-2016  | Qualitative<br>(Grade 1 to 5)                     |
|     |   | Colour fastness to perspiration  | IS 971:1983<br>ISO 105 EO4-2013  | Qualitative<br>(Grade 1 to 5)                     |
|     |   | Colour fastness to Water   | IS 767–1988<br>ISO 105- E01–2013   | Qualitative<br>(Grade 1 to 5)                     |
| 2.  | <b>Fiber, Yarns, Fabrics, Garments &amp; made ups</b> | Colour fastness to Xenon Arc Lamp  | IS:2454:1985<br>ISO 105 B02-2014   | Grade 1 to 5<br>Numerical Rating Blue Wool 1 to 8 |
| 3.  | <b>Fabrics, Garments &amp; made ups</b>               | % Composition by physical separation   | AATCC-20 :2013<br>AATCC-20A-2014<br>TC/LAB-TM-14   | 0.1% to 100%                                      |
| 4.  | <b>Fabrics, Garments &amp; made ups</b>               | Dimensional Changes (for various categories of fabrics) for soaking in water | IS: 2977:1989 (other than wool woven & knitted)<br>IS – 665-1989 (for fabrics containing wool) | (-)50 % to (+)50%                                 |

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### MECHANICAL TESTING

| I. | TEXTILE MATERIAL       |  |  |   |
|----|------------------------|--|--|---|
| 1. | Textiles               | Wool fiber diameter  | IS:744-2000 &<br>IS 5911-1977  | 2 Micron to 100 Micron                              |
| 2. | Yarn                   | Linear density   | IS 1315:1977   | 1 <sup>s</sup> to 130 <sup>s</sup> Ne<br>(41-5315D) |
|    |                        | Yarn Strength Parameters<br>(Lea Strength)                             | IS 1671:1977   | 100N to 2kN<br>(22.5 lbs to 450 lbs)                |
|    |                        | Twist  | IS:832 (Part 1 & 2)<br>ASTM D 1422-2013<br>ASTM D 1423-2008<br>ISO 2061-2010 | 200 TPM to 2000 TPM<br>(5 to 50 TPI )               |
| 3. | Fabric/RMG<br>/Made up | Threads per unit length in<br>woven fabrics                            | IS 1963<br>ASTM D 3775-2012<br>ISO 7211-2-1984<br>BSEN 1049-2-1994           | 20 to 1000 per dm<br>(5 to 254) per Inch            |
|    |                        | Twist of yarn removed<br>from fabric                                   | IS:832 (Part 1 & 2)<br>ASTM D 1422-2013<br>ISO 7211-4-1984                   | 200 to 2000 TPM<br>(5 to 50 TPI )                   |
|    |                        | Breaking Strength &<br>Elongation-Grab                                 | IS 1969 (Part-2):2010<br>ASTM D 5034-2013<br>ISO 13934-2-2014                | 5 N to 5K N<br>(0.5 to 500Kgf)                      |
|    |                        | Breaking Strength &<br>Elongation of Woven<br>fabrics (Ravelled Strip) | IS 1969 (Part-1):2009<br>ASTM D 5035-2011<br>ISO 13934-1-2013                | 5 N to 5K N<br>(0.5 to 500Kgf)<br>Elongation 1-70%  |
|    |                        | Linear density of Thread<br>removed from fabric                        | TC/ LAB TM-02:2014   | 1 <sup>s</sup> to 130 <sup>s</sup> Ne<br>(41-5315D) |

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|     |                            | Mass per unit length and mass per unit area | IS 1964-2001<br>ISO 3801-1977 M 5<br>ISO 12127-1998<br>ASTM D 3776- M-09a option-C         | 25 to 1500 GSM                         |
|     |                            | Length and width of the fabric              | IS 1954:1990<br>ASTM D 3773-2010<br>ASTM D 3774-1996(2012)                                 | 0.5 cm to 300 cm                       |
|     |                            | Pilling Resistance (Box Type)               | IS:10971 (Pt-1):2011/<br>ISO 12945-1-2001<br>BSEN ISO 12945-1-2001<br>IWS TM 152 July 1996 | Qualitative (Grade 1 to 5)             |