Regional Laboratory, Textiles Committee, FKCCI-WTC Building, K. G. Road, Bangalore, Karnataka Laboratory

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

Discipline **Mechanical Testing** Issue Date 28.03.2014

**Certificate Number** T-0432 Valid Until 27.03.2016

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| S.No. | Product /<br>Material of Test | Specific Test Performed                                | Test Method Specification<br>against which tests are<br>performed                       | Range of Testing /<br>Limits of Detection               |
|-------|-------------------------------|--|---|---|
| I.    | TEXTILES & RELA               | ATED PRODUCTS  |   |   |
| 1.    | Yarn                          | Linear density   | IS 1315:1977 (RA 2010)<br>ASTM D 1907/<br>D1907M:2012<br>ISO 2060: 1994                 | 5 to 600 tex<br>(3 <sup>s</sup> to 150 <sup>s</sup> Ne) |
|       |                               | Lea Strength   | IS 1671:1977 (RA 2008)<br>ASTM D 1578-93 (RA 2011)<br>ISO 6939: 1988                    | 10 to 8000 Newtons (2 to 1,600 lbf)                     |
|       |                               | Twist  | IS 832 Part 1 & 2:2011<br>ISO 2061-2010<br>ASTM D: 1422-99<br>ASTM D: 1423-02 (RA 2008) | 80 to 2300 TPM (2 to 60 TPI)                            |
|       |                               | Unevenness of Textile Strand                           | ASTM D1425/<br>D1425M-09<br>ISO 16549:2004  | 1 to 25%  |
|       |                               | Imperfections per unit length                          | ASTM D1425/<br>D1425M-09<br>TC/LAB-TM-01  | Upto 2000 per 1000m                                     |
| 2.    | Yarn & Chords                 | Breaking Load and elongation at break of single thread | IS 1670:1991(RA 2007)<br>ISO: 2062-2009<br>ASTM D: 2256/2256M-10e1                      | Strength:<br>1 to 500 Newton<br>Elongation: 1% to 100%  |

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| 3.    | Fabric/RMG /<br>Made up       | Threads per unit length in woven fabrics                         | IS 1963:1981(RA 2008)<br>ISO 7211-2 – 1984<br>ASTM D: 3775- 08                        | 50 to 1000 per dm (13 to 250 per inch)             |
|       |                               | Twist of yarn removed from fabric                                | IS 832 : 1985 (RA 2010)<br>ISO 7211-4 –1984   | 80 – 2300 TPM<br>(2-60 TPI)                        |
|       |                               | Breaking Load and elongation - Grab method                       | IS 1969:1985 (RA 2010)<br>ASTM D: 5034-09<br>ISO 13934-2-1999                         | Strength:<br>100N to 9kN<br>Elongation: 1% to 100% |
|       |                               | Breaking Load and elongation - Strip method                      | IS 1969:1985 (RA 2010)<br>ASTM D: 5035-2011<br>ISO 13934-1-2013                       | Strength:<br>100N to 9kN<br>Elongation: 1% to 100% |
|       |                               | Linear density of Thread removed from fabric                     | TC/ LAB TM-02   | 5 to 600 tex<br>(3° to 150° Ne                     |
|       |                               | Weight per square metre / Linear meter fabrics (Weighing Method) | TC/ LAB TM-03<br>ISO 3801-1977<br>IS 1964-2001(RA 2010)<br>ASTM D: 3776/<br>D3776M09a | 25 to 1500 GSM                                     |
|       |                               | Tear Strength (Elmendorf)  | ASTM D 1424-09<br>IS 6489:1993 (RA 2008)<br>ISO 13937-1-2000                          | 0.2 to 58.6 N<br>(20g to 5860g)                    |
|       |                               | Abrasion Resistance (Martindale)                                 | ASTM D: 4966 –12  | Upto 99999<br>Weight up to 50%<br>Grade 1 to 5     |

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|       |                               | Pilling Resistance Atlas Random<br>Tumble Pilling)                            | ASTM D: 3512/D3512M-10 e1   | Grade 1 to 5                              |
|       |                               | Resistance to seam Slippage<br>Fixed Seam Opening Method<br>Fixed Load Method | ISO 13936-1:2004<br>ISO 13936-2:2004                              | 10N to 200N<br>Upto 50mm                  |