| Laboratory | Regional Laboratory, Textiles Committee, Platinum Centre, Fort Road, Cannanore, Kerala | | |
|------------------------|-------------------------------------------------------------------------------------------|-----------------|--|
| Accreditation Standard | ISO/IEC 17025: 2005 | | |
| Certificate Number | TC-5597 | Page 1 of 3 | |
| Validity | 08.05.2017 to 07.05.2019 | Last Amended on | |

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

CHEMICAL TESTING

| I. | TEXTILE (WOVEN & NON WOVEN) | | | |
|----|-----------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------|
| 1. | Fibres, Yarn | Moisture content | IS 199 | Upto 50 % |
| 2. | Textiles | Identification of fibres | IS 667 AATCC 20 | Qualitative |
| | | Quantitative analysis of mixtures: | AATCC 20 A IS 9889 (Silk & wool) | 0.1 % to 100 % |
| | | | IS 1889 (Part-4) (Cotton + Viscose) | |
| | | | IS 6503& IS 2005 (Nylon + Others) | |
| | | | IS 2006(Wool + Others) IS 3416- part I (Polyester + Cotton) (Polyester + Viscose) | |
| | | | IS 3421 (Acrylic + Others) - DMF method | |
| | | | IS 9896 (Polyolefin + others) | |
| | | Colour fastness to washing Test I | IS / ISO 105 C10 BS EN 20105-C01 ISO 105 C10 | Qualitative Grade 1 to 5 |
| | | Test II | IS/ISO 105 C10 BS EN 20105-C02 ISO 105 C10 | Qualitative Grade 1 to 5 |
| | | Test III | IS/ISO 105 C10 BS EN 20105-C03 ISO 105 C10 | Qualitative Grade 1 to 5 |
| | | Test IV | IS/ISO 105 C10 BS EN 20105-C04 ISO 105 C10 | Qualitative Grade 1 to 5 |

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| Validity | | 08.05.2017 to 07.05 | 7.05.2019 Last Amended on | |
|----------|--------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------|
| SI. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
| | | Test V | IS/ISO 105 C10 BS EN 20105-C05 ISO 105 C10 | Qualitative Grade 1 to 5 |
| | | Colour fastness to commercial laundering | BS EN 105-C06 AATCC 61-1A ISO105-C06 | Qualitative Grade 1 to 5 |
| | | Colour fastness to dry cleaning | IS 4802 ISO-105-D01 AATCC-132 | Qualitative Grade 1 to 5 |
| | | Colour fastness to organic solvents | IS 688 ISO 105 X05 | Qualitative Grade 1 to 5 |
| | | Colour fastness to rubbing/crocking | IS 766 ISO 105 X12 AATCC 8 | Qualitative Grade 1 to 5 |
| | | Colour fastness to perspiration | IS 971 BS EN ISO 105 E04 ISO 105 E04 | Qualitative Grade 1 to 5 |
| | | Colour fastness to Water | IS 767 ISO 105- E01 AATCC 107 BSEN ISO 105-E01 | Qualitative Grade 1 to 5 |
| 3. | Fabrics, Garments & Madeups | % Composition by physical separation | TC/LAB-TM-14 AATCC 20 A | 0.1 to 100% |
| | | Dimensional Changes (for various categories of fabrics) | IS: 2977 (other than wool woven & knitted) | 0.6 % to 50 % |
| | | pH of aqueous extracts | IS: 1390, ISO 3071 AATCC- 81 | 1 to 14 |
| | | Free Formaldehyde | BSEN ISO 14184-1 JISL 1041, ISO 14184- 2011 | Upto 1000 mg/kg |
| | | Absorbency of bleached cotton | AATCC 79 | Upto 300 seconds |
| [| | Water soluble matter | IS: 3456 | Upto 40 % |
| | | Scouring loss % | IS 1383 | Upto 20 % |

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

MECHANICAL TESTING

| I. | TEXTILE MATERI | ALS | | |
|----|------------------------|---------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------|
| 1. | Yarn | Linear density | IS 1315 | 4.54 tex to 590.5 tex |
| | | Lea Strength | IS 1671 | 80 N to 2200 N |
| | | Twist in yarn | IS 832 ASTM D: 1422 ASTM D: 1423 | 400TPM to 2300 TPM |
| | | Grading cotton yarns for appearance | ISO 2061 ASTM D: 2255 | Grade A ⁺ to Below D |
| 2. | Yarn & Chords | Breaking Load and elongation at break of single thread | IS 1670 ASTM D: 2256M ISO: 2062 | Strength: 1 N to 90 N Elongation: 5 % to 100 % |
| 3. | Fabric/RMG/ Made up | Threads per unit length in woven fabrics | IS 1963 ASTM D: 3775 ISO 7211-2 BSEN 1049–2 | 390/ dm to 1000 / dm |
| | | Twist of yarn removed from fabric | IS 832 ASTM D: 1422 ASTM D: 1423 ISO 2061 | 1 TPM to 2300 TPM |
| | | Breaking Load and elongation - strip method | IS 1969 ASTM D: 5035 ISO 13934-1 BSEN ISO 13934-1 | Strength: 100N to 2000 N Elongation: 1 % to 50% |
| | | Linear density of Thread removed from fabric | TC/ LAB TM-02 | 4.54 tex to 590.5 tex |
| 4. | Fabric/ Made up | Mass per square meter/ Linear meter fabrics (Weighing Method) | IS 1964 ISO 3801 BSEN 12127 ASTM D: 3776-M-09a | 25 g to 1500 g |