# National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

## SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 1 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| **Permanent Facility** | | | | | |
| 1 | CHEMICAL-ATMOSPHERIC POLLUTION | Ambient Air Quality Monitoring | Oxides of Nitrogen (NOx) | IS: 5182 (Part– 6) 2006 : 2006 | 6 µg/m³ to 750 µg/m³ |
| 2 | CHEMICAL-ATMOSPHERIC POLLUTION | Ambient Air Quality Monitoring | Particulate Matter (PM10) | IS : 5182 (Part – 23) (RA 2017): 2006 | 5 µg/m³ to 1000 µg/m³ |
| 3 | CHEMICAL-ATMOSPHERIC POLLUTION | Ambient Air Quality Monitoring | Particulate Matter (PM2.5) | USEPA Quality Assurance Hand Base, Vol. II (Part-II) Quality Assurance Guidance Document 2.12 : 2016 | 5 µg/m³ to 1000 µg/m³ |
| 4 | CHEMICAL-ATMOSPHERIC POLLUTION | Ambient Air Quality Monitoring | Sulphur Dioxide (SO2) | IS: 5182 (Part– 2) 2001 (Reaffirmed-2006): 2006 | 4 µg/m³ to 1050 µg/m³ |
| 5 | CHEMICAL-ATMOSPHERIC POLLUTION | Ambient Air Quality Monitoring | Suspended Particulate Matter (SPM) | IS: 5182 (Part– 4) (Reaffirmed-2014): 1999 | 5 µg/m³ to 1000 µg/m³ |
| 6 | CHEMICAL-ATMOSPHERIC POLLUTION | Stationary Source(Stack Emissions Monitoring) | Oxides of Nitrogen (NO2) | IS: 11255 (Part – 7) (RA 2017): 2005 | 2 mg / Nm3 to 400 mg/ Nm3 |
| 7 | CHEMICAL-ATMOSPHERIC POLLUTION | Stationary Source(Stack Emissions Monitoring) | Particulate Matter (PM) | IS: 11255 (Part – 1) 2009 : 2009 | 10 mg/Nm³ to 1000 mg/Nm³ |
| 8 | CHEMICAL-ATMOSPHERIC POLLUTION | Stationary Source(Stack Emissions Monitoring) | Sulphur Dioxide (SO2) | IS: 11255 (Part– 2) 1985 (Reaffirmed-2009): 2009 | 3 mg/Nm3 to 500 mg/Nm,3 |
| 9 | CHEMICAL- PLASTIC & RESINS | Plastics and Polymers | Limiting Oxygen Index | ASTM D 2863-13 ISO 4589-2 1996 ISO 4589-3: 1996 | 18 % to 60 % |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 2 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 10 | CHEMICAL- PLASTIC & RESINS | Plastics and Polymers | Smoke Density | ASTM E662-13d ISO 5659-2(E): 2006 | 0.01 VOFDs to 1500 VOFDs |
| 11 | CHEMICAL- PLASTIC & RESINS | Plastics and Polymers | Toxicity Index | NES 713 April 2006 NCD 1409(Specifcation no. RDSO/2006/CG-12) Dec: 2006 | 0.1 % to 60 % |
| 12 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | Ammonical Nitrogen | APHA 23rd Edition – 2017:4500/NH3 C: 2017 | 0.05 mg/l to 500 mg/l |
| 13 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | Chloride (as Cl) | APHA 23rd Edition – 2017:4500/Cl- B: 2017 | 10 mg/l to 10000 mg/l |
| 14 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | Colour | APHA 23rd Edition – 2017:2120/C: 2017 | 1 Hazen to 500 Hazen |
| 15 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | Dissolved Oxygen (DO) | APHA 23rd Edition – 2017:4500 O C: 2017 | 0.1 mg/l to 6.0 mg/l |
| 16 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | Fluoride (as F) | APHA 23rd Edition – 2017:4500/F- D: 2017 | 0.5 mg/l to 50 mg/l |
| 17 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | pH | APHA 23rd Edition – 2017:4500/H+: 2017 | 1 to 14 |
| 18 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | Sulphate (as SO4) | APHA 23rd Edition – 2017:4500/SO42- E: 2017 | 10 mg/l to 5000 mg/l |
| 19 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | Sulphide (H2S) | APHA 23rd Edition – 2017:4500/S2- F: 2017 | 0.5 mg/l to 200 mg/l |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 3 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 20 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | Total Dissolved Solids (TDS) | APHA 23rd Edition – 2017:2540/C: 2017 | 100 mg/l to 25000 mg/l |
| 21 | CHEMICAL- POLLUTION & ENVIRONMENT | Waste Water | Total Suspended Solids (TSS) | APHA 23rd Edition – 2017: 2540/D: 2017 | 10 mg/l to 250 mg/l |
| 22 | CHEMICAL- SOLID FUELS | Coal | Gross Calorific Value | IS 1350 part 2: 2017 | 1000 KCal/Kg to 8500 KCal/Kg |
| 23 | CHEMICAL- SOLID FUELS | Coal | Proximate Analysis-Ash | IS 1350 part 1-1984 RA: 2013 | 1.0 % to 50.0 % |
| 24 | CHEMICAL- SOLID FUELS | Coal | Proximate analysis-Moisture on Air dry Basis | IS 1350 part 1-1984 RA: 2013 | 5.0 % to 30.0 % |
| 25 | CHEMICAL- SOLID FUELS | Coal | Proximate Analysis-Volatile | IS 1350 part 1-1984 RA: 2013 | 2.0 % to 60.0 % |
| 26 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Blend Analysis | IS: 3416-1988 Part 1 RA 2008, ISO 1833-11-2006 AATCC-20A-2013 IS:2006-1988 RA 2009 ISO 1833-4-2006 IS:3421-1988 RA 2010 ISO:1833-12-2006 IS:1889-1979-Part IV RA: 2010 | 1 % to 100 % |
| 27 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to Artificial Light: Xenon Arc fading lamp test | ISO 105 B02 2014 IS 2454 1985 RA: 2010 | Qualitative(Grade 1.0 to 8.0) |
| 28 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to Crocking-AATCC Crockmeter | AATCC 8: 2016 | Qualitative(Grade 1.0 to 5.0) |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 4 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 29 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to domestic and commercial laundering-Oxidative bleach response using non-phosphate reference detergent incorporating a low bleach activator | ISO 105 C09: 2001 | Qualitative(Grade 1.0 to 5.0) |
| 30 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to Domestic and Commercial Laundry | ISO 105 C 06-2010 IS 13025-1991 RA : 2008 | Qualitative(Grade 1.0 to 5.0) |
| 31 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to domextic and commercial laundering using non-phosphate reference detergent incorporating a low temperature bleach activator | ISO 105 c 08: 2010 | Qualitative(Grade 1.0 to 5.0) |
| 32 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to Dry Cleaning | ISO 105 D01 2010 AATCC 132 2013 IS 4802-1988 RA: 1999 | Qualitative(Grade 1.0 to 5.0) |
| 33 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to Hot pressing | ISO 105 X11 1994 AATCC 133 2913 IS 689 1988 RA: 2009 | Qualitative(Grade 1.0 to 5.0) |
| 34 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to Laundry Accelerated | AATCC 61 No.1A-5A: 2013 | Qualitative(Grade 1.0 to 5.0) |
| 35 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to Perspiration | ISO 105-E04-2013 IS 971-1983(RA 2009) AATCC 15: 2013 | Qualitative(Grade 1.0 to 5.0) |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 5 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 36 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to Rubbing | ISO 105-X12 2016 IS 766-1988 RA: 2009 | Qualitative(Grade 1.0 to 5.0) |
| 37 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to Washing with Soap and Soda | ISO 105 C10-2006 IS/ISO 105 C10: 2006 | Qualitative(Grade 1.0 to 5.0) |
| 38 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Fastness to water | ISO 105 E01 2013 AATCC 132 2013 IS 767 1988 RA: 1999 | Qualitative(Grade 1.0 to 5.0) |
| 39 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Performance of High-Visibility warning clothing | DIN EN ISO 20471:2013 EN 471: 2003 + A1: 2007 EN 1150:1999 IS 15809: 2008 | Qualitative(Chromaticity Coordinates 0.1 up to 0.9) |
| 40 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Colour Performance of High-Visibility warning clothing | DIN EN ISO 20471:2013 EN 471: 2003+A1: 2007 EN 1150: 1999 IS 15809: 2008 | Qualitative(Chromaticity Coordinates 0.1 up to 0.9) |
| 41 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Ether Soluble Matter | IS: 4390-2001 RA: 2012 | 0 % to 20 % |
| 42 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Fatty Matter | IS: 199-1989 RA 2005 RA: 2010 | 0.01 % to 20 % |
| 43 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Fibre Identification | IS: 667-1981 RA: 2008 | Qualitative |
| 44 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Identification of Dyes | IS 4472-Part-I:: 1967 | Qualitative |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 6 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 45 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Instrumental Colour difference measurement (CMC: Calculation of Small Colour Differences for Acceptibility) "Relative Colour Strength of Dyes in Solution" | AATCC Test Method 173-2015 AATCC Test Method 182-2011 SAE J 1767-: 2014 | 0.1 deltaE to 10 deltaE |
| 46 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | pH of Aqueous Extracts | IS: 1390-1983 RA 2004 ISO 3071-2005 AATCC 81: 2012 | 1 to 14 |
| 47 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Releasable Formaldehyde | IS 14563-1999 (Part 2) ISO 14184-2-2011 AATCC 112: 2008 | 20 mg/kg to 3500 mg/kg |
| 48 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Total Size or Finish | IS 199-1989 RA: 2010 | 0.1 % to 30 % |
| 49 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabric | Water Soluble Matter | IS: 3456-1966 RA: 2010 | 0 % to 20 % |
| 50 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Fibre, Yarn, Fabrics | Scouring Loss | IS: 1383-1977 RA: 2009 | 0.1 % to 10 % |
| 51 | CHEMICAL- TEXTILE (WOVEN & NON WOVEN) | Textile Fabric | Ash content | IS 1346: 2016 | 1.0 % to 20.0 % |
| 52 | MECHANICAL- PLASTICS AND PLASTIC PRODUCTS | Polymer Metrix Composites | Apparent interlaminarshear strength by short-beam method | ASTM D2344-06 ISO 14130:1997: 1997 | 5 MPa to 500 MPa |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 7 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 53 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Polymer/plastics | Deflection Temperature of Plastics Under Flexural Load inthe Edgewise Position | ISO 75- 2:2013/ ASTM D648-07 METHOD B: 2007 | 30 °C to 275 °C |
| 54 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Polymer/plastics | Rockwell Hardness | ISO 2039-2:1987/ ASTM D785-08: 2008 | 10 HRL to 120 HRL |
| 55 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Polymer/plastics | Vicat Softening Temperature of Plastics | ASTM D1525-09/ ISO 306:2013: 2013 | 30 °C to 275 °C |
| 56 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Subgroup1Unreinforced and Reinforced Plastics | Reaction to fire tests -- Ignitability of products subjected to direct impingement of flame -- Part 2: Single-flame source test | ISO 11925-2:2010: 2010 | Qualitative(3 to 60sec) |
| 57 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Subgroup1Unreinforced and Reinforced Plastics | Standard for Safety ofFlammability of Plastic Materials for Parts inDevices and Appliances testing1. Horizontal Burning2. Vertical Burning3. 45° angle Burning | UL 94:2013 (Class 7, Class 12) :1998 ASTM D635-14 ASTM D4986-10 ISO 9772 : 3rd Edition 2012 IS 11731(Part 1): 1986 (reaffirmed 2001) UL 94:2013 (Class 8, Class 9, Class 11) IS 11731 (Part 2) 1986 (reaffirmed 2001): 2001 | Qualitative(1s to 900s) |
| 58 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Unreinforced and Reinforced Plastics | Charpy impact properties:Non-instrumented impact test | ISO 179-1:2010: 2010 | 10 kJ/m² to 1000 kJ/m² |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 8 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 59 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Unreinforced and Reinforced Plastics | Compressive Properties of Rigid Plastics | ASTM D695-15 ISO 604:2002: 2002 | 1 MPa to 20000 MPa |
| 60 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Unreinforced and Reinforced Plastics | Density and Specific Gravity (Relative Density)by Displacement(Method A) | ASTM D792-13: 2013 | 0.8 g/cc to 2.5 g/cc |
| 61 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Unreinforced and Reinforced Plastics | Flexural Properties | ASTM D790-15e2 ISO 14125:1998 Method- A, Amendment 1:2011 ISO 178:2010/ Amendment:2013: 2013 | 5 MPa to 2000 MPa |
| 62 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Unreinforced and Reinforced Plastics | Heat Release Rate(Cone Calorimeter Method) | ISO 5660-1:2015: 2015 | 1 kW/m² to 500 kW/m² |
| 63 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Unreinforced and Reinforced Plastics | Indentation Hardness of Rigid Plastics by Means of BarcolImpressor | ASTM D2583-13a: 2013 | 5 HBa to 100 HBa |
| 64 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Unreinforced and Reinforced Plastics | Izod Pendulum Impact Resistance | ASTM D256-10 ISO 180:2000- Amendment-2 :2013: 2013 | 5 kJ/m² to 700 kJ/m² |
| 65 | MECHANICAL-PLASTICS AND PLASTIC PRODUCTS | Unreinforced and Reinforced Plastics | Tensile Properties of Plastics | ASTM D638-14 ISO 527-4:1997 ASTM D3039-14: 2014 | 1 MPa to 4000 MPa |
| 66 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibers | AFIS- Neps/g | ATSM D 5866: 2012 | 1 neps/g to 999 neps/g |
| 67 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibers | AFIS-neps Size (mu) | ATSM D 5866: 2012 | 450 µm to 1500 µm |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 9 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 68 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibers | HVI-Colour whiteness (Rd) | STP/TT/Fi/1 Issue No. 9, Uster Standard Test Method 1997: 2016 | 40 to 85 |
| 69 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibers | HVI-Colour Yellowness (+b) | STP/TT/Fi/1 Issue No. 9, Uster Standard Test Method 1997: 2016 | 4 to 18 |
| 70 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibers | HVI-Elongation% | ASTM D 5867-12 e1, ISO 4913 1981, IS 233 part 4 1978-RA 2004: 2012 : 2012 | 2 % to 20 % |
| 71 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibers | HVI-Length | ASTM D 5867-12 e1, ISO 4913 1981, IS 233 part 4 1978-RA 2004: 2012 | 3.0 mm to 44.0 mm |
| 72 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibers | HVI-Length Uniformity | ASTM D 5867-12 e1, ISO 4913 1981, IS 233-Part 4, 1978 RA 2004: 2012 | 48 % to 95 % |
| 73 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibre | HVI-Short Fibre % | STP/TT/Fi/1 Issue no.00,2018 (Uster Standard Test method-1997): 2018 | 0 % to 50 % |
| 74 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibre | HVI-Strength | ASTM D 5867-12e1 ISO 4913: 1981 IS 233Part 4: 1978 RA: 2004 | 1 g/tex to 50 g/tex |
| 75 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibre | HVI-Strength | ASTM D 5867-12e1 ISO 4913: 1981 IS 233Part 4: 1978 RA: 2014 | 1 g/tex to 50 g/tex |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 10 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 76 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibre | Immature Fibre Content | STP/TT/Fi/2 Issue no.900 (Uster Standard Test Method-1997): 2018 | 1 % to 10 % |
| 77 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibre | Maturity Ratio | STP/TT/Fi/2, Issue No. 00,2018, Uster standard test method 1997:: 2018 | 0.5 to 1.1 |
| 78 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibres | AFIS-Length | STP/TT/Fi/2, Issue No. 9, Uster standard test method 1997: 2016 | 3 mm to 45 mm |
| 79 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibres | AFIS-SCN size (mu) | ASTM D 5866: 2012 | 450 µm to 1500 µm |
| 80 | MECHANICAL-TEXTILE MATERIALS | Cotton fibres | AFIS-Short fibre content(%) | STP/TT/Fi/2, Issue No. 9, Uster standard test method 1997: 2016 | 1 % to 50 % |
| 81 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibres | Fibre Fineness(mtex) | STP/TT/Fi/2, Issue No. 00,2018, Uster standard test method 1997:: 2006 | 40 mtex to 315 mtex |
| 82 | MECHANICAL-TEXTILE MATERIALS | Cotton fibres | HVI-Micronaire | ASTM D 5867-12 e1: 2012 | 1.5 µg/inch to 8.0 µg/inch |
| 83 | MECHANICAL-TEXTILE MATERIALS | Cotton Fibres | Total Trash (%) | ASTM D 2812 - 2017, IS 4871-1968(RA 2014): 2017 | 0.01 % to 50 % |
| 84 | MECHANICAL-TEXTILE MATERIALS | Fabric, Garment | Crimp of warp and weft yarn removed from fabric | IS 3442-1980 (RA2014) ISO 7211-3 1984 ASTM D 3883-04(2016): 2008 | 0 % to 60 % |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 11 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 85 | MECHANICAL-TEXTILE MATERIALS | Fabric/Garment | Abrasion Resistance(Martindale) | ISO 12947(1) 1998 ISO 12947(2) 1998 ISO 12947(3) 1998 ISO 12947(4) 1998 ASTM D 4966-2016 IS 12673(RA 2010) EN 288 : 2017 | Qualitative(100 to 100000 rubs 1 to 5 Grade; 1 to 2000 rubs) |
| 86 | MECHANICAL-TEXTILE MATERIALS | Fabric/Garment | Bursting Strength | ISO 13938-1 1999; ASTM D 3786-M: 2018 | 80 PSI to 1500 PSI |
| 87 | MECHANICAL-TEXTILE MATERIALS | Fabric/Garment | Drape Coefficient | ISO 9073-9 2008, Method A IS 8357-1977*RA 2008) EDANA 90.4 99: 2008 | Qualitative |
| 88 | MECHANICAL-TEXTILE MATERIALS | Fabric/garment | Horizontal Flammability | ISO 3795:1989, ASTMD5132: 2017,IS 15061:2002 (RA2012), SAE J 369: 2013 | 0.1 s to 3600 s |
| 89 | MECHANICAL-TEXTILE MATERIALS | Fabrics, Garments | Water Vapour Resistance | IS0 11092-2014, ASTM F 1868-2017, NFPA 1971: 2001 | 0.01 m².Pa/W to 100 m².Pa/W |
| 90 | MECHANICAL-TEXTILE MATERIALS | Fabrics, Garments | Wing rip Tear | ISO 13937-3, 2000: 2000 | 100 N to 30000 N |
| 91 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | 45 Degree Flammability | ASTM D 1230-10(RA 2017) 16 CFR 1610 IS 11871 1986 procedure A RA 2004: 2017 | 0.1 s to 3600 s |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 12 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 92 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Abrasion Resistance (Martindale) | ISO 12947(1) 1998 ISO 12947(2) 1998 ISO 12947(3) 1998 ISO 12947(4) 1998 ASTM D 4966-2016 IS 12673(RA 2010) EN 388 :: 2016 | 0.0001 g to 10 g |
| 93 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Absorbancy | AATCC 79-2014 IS 2349-1963 RA: 2016 | 1 s to 60 s |
| 94 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Air Permeability | ISO 9237-1995 ASTM D 0737-04(2018) IS 11056-2013 EDANA 140.2-99 ISO 9073-15: 2007 | 1 l/m²/s to 10000 l/m²/s |
| 95 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Count of Warp/Weft | IS 3442-1980 RA 2008, ISO 7211-5-1984: 2008 | 1 Ne to 200 Ne |
| 96 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Crease Recovery by measuring angle of recovery | ISO 2313-1972 IS 4681 1981(RA 2004 ) AATCC 66: 2017 | 70 deg angle to 180 deg angle |
| 97 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Dimensional Stability after exposure to heat | IS 11815-1986 Annexure B & Annexure C RA: 1997 | -50 % to 50 % |
| 98 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Dimensional Stability after immersion in water | ISO 7771-1985 AATCC 99-2004 IS 2977-1989 RA 2016: 2016 | -50 % to 50 % |
| 99 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Dimensional Stability to Dry Cleaning | ISO 3759 2017/ ISO 3175-2 2010, AATCC 158-2016 IS 15612 Part 2 Annexure C: 2006 | -50 % to 50 % |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 13 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 100 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Dimensional Stabillity to domestic Laundry | ISO 5077 2007/ ISO 6330 2012 AATCC 135-2018 AATCC 150-2018 IS 1299-1984 RA: 2016 | -50 % to 50 % |
| 101 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Measurement of Skew, Bow and Spirality | ASTM D 3882-08: 2016 | -50 % to 50 % |
| 102 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Oil Repellency | AATCC 118-2013 ISO 14419 RA: 2010 | Qualitative(Grade 1 to 8) |
| 103 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Pilling Resistance(Martindale) | ISO 12945-2 2000 IS 10971 part 2 2011 ASTM D 4970/4970M16e3: 2016 | Qualitative(Grade 1 to 5) |
| 104 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Pilling Resistance(Pill Box) | ISO 12945-1 2000 IS 10971 part 2011: 2011 | Qualitative(Grade 1 to 5) |
| 105 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Seam Performance (Seam strength and Seam Slippage) | ASTM D 434-95 ASTM D 1683/D 1683M-17e1 ISO 13935-1 2014 ISO 13935-2 2014 ISO 13936-1 2004 ISO 13936-2 2004: 2014 | 10 kgf to 3000 kgf |
| 106 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Seam Performance( Seam Strength and Seam Slippage) | ASTM D 434-95 ASTM D 1683/ D 1683M-17e1 ISO 13935-1 2014 ISO 13935-2 2014 ISO 13936-1 2004 ISO 13936 2. 2004: 2014 | 1.0 mm to 10 mm |
| 107 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Spirality/ Skewing of Fabrics & Garments | AATCC 179-2017 ISO 16322-2 2005 ISO 16322-3: 2005 | -50 % to 50 % |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 14 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 108 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Tarpezoidal Tear | ASTM D 5587 2015 IS 6489 part 3 2011 Ra 2017: 2017 | 100 N to 30000 N |
| 109 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Tear Strength (Elmendorf) | ISO 13937-1:2000 ASTM D 1424 09 2013 IS 6489 part 1 2011 Ra 2017 IS 7016-2017 part 3 sec 2: 2017 | 320 g to 5200 g |
| 110 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Tensile - Elongation (Strip Test) | ISO 13934-1: 2013 IS 1619-2010 ASTM D 5035-11(RA 2015) IS 7016-1981(Part II) RA: 2008 | 1.0 % to 100 % |
| 111 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Tensile Strength & Elongation (Strip Test) | ISO 13934-1:2013 IS 1969-2010 ASTM D 5035-11(RA 2015) IS 7016-1981(Part II) RA : 2008 | 10 kgf to 3000 kgf |
| 112 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Thermal Resistance | ISO 11092-2014, ASTM F 1868-2017, NFPA 1971: 2018 | 0.0001 sqm.k/W to 10.0 sqm.k/W |
| 113 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Tongue Tear(Double) | ISO 13937-4: 2000 IS 7016-2017 (Part 3/ sec 1 method A: 2017 | 100 N to 30000 N |
| 114 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Tongue(Trouser Shape) Tear(Single) | ISO 13937-2:2000 ASTM D 2261-13 EN 388:2016 IS 7016-17 (Part III) RA Method A2: 2008 | 100 N to 30000 N |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 15 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 115 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Verical Flammability: Flame spread of Vertically Oriented specimen | ISO 6941-2003 BS 5438-1989 (1A and 2A) IS 15612-2005(Part 4)RA 2013 IS 15612 2006 ( Part2 RA 2013) IS 11871-1986Procedure A(RA 2013 ) ASTM D 6413/D6413M-2015 EN 407 (sec 6.3): 2004 | 0.1 s to 3600 s |
| 116 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Vertical Flammability: Ease of Ignition of vertically oriented specimen | ISO 6940-2004 ISO 15589-2005 RA 2013 IS 15612-Part 3 RA 2013: 2013 | 0.1 s to 3600 s |
| 117 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Vertical Flammability: Flame Spread properties of Vertically oriented specimen | ISO 6941-2003 BS 5438-1989 (1A and 2A) IS 15612-2005(Part 4) IS 15612 2006 Part2) IS 11871-1986 Procedure A(RA 2013) ASTM D 6413/D6413M-2015 EN 407 (sec 6.3): 2004 | 0 mm to 300 mm |
| 118 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Water Repellency(Spray Test) | ISO 4920-2012 AATCC 22 2017 IS 390 1975 RA 2003: 2017 | Qualitative(ISO 1 to 5 AATCC (0,50,70,80,90,100)) |
| 119 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Water Resistance Hydrostatic Head Test | ISO 811-2018 EN 20811-1992 AATCC 127-2017 EDANA 120.2-02 ISO 9073-16 2007 BS 2823 1982 IS 391-1973 RA: 2003 | 10 mbar to 2000 mbar |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 16 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 120 | MECHANICAL-TEXTILE MATERIALS | Fabrics/Garments | Weight per unit area | ASTM D 3776/D 3776m-09a/ Option C IS 1964-2001(RA 2017) ISO 3801 1977: 2017 | 20 g/sqm to 6000 g/sqm |
| 121 | MECHANICAL-TEXTILE MATERIALS | Fibres | AFIS Seed Coat Neps | ASTM D 5866: 2012 | 1 Neps/g to 999 Neps/g |
| 122 | MECHANICAL-TEXTILE MATERIALS | Fibres | AFIS Seed Coat Neps | ASTM D 5866: 2012 | 1 neps/gm to 999 neps/gm |
| 123 | MECHANICAL-TEXTILE MATERIALS | Fibres | Fibre Denier (Gravimetric method) | ASTM D 1577-2017, IS 234-2013 , ISO 1973-1995: 2017 | 0.07 D to 10 D |
| 124 | MECHANICAL-TEXTILE MATERIALS | Fibres | Fibre Denier (Gravimetric method) | ASTM D 1577-2017 IS 234-1973 (RA 2013) ISO 1973: 1995 | 0.07 D to 10 D |
| 125 | MECHANICAL-TEXTILE MATERIALS | Fibres | Number of Crimps per mm | ASTM D 3937-12 (option 2): 2012 | 1 arcs/25mm to 25 arcs/25mm |
| 126 | MECHANICAL-TEXTILE MATERIALS | Fibres | Single Fibre Breaking Elongation (%) | ASTM D 3822- 07( 2014), IS 235-1989 RA 2014, ISO 5079-1995: 2004 | 2 % to 60 % |
| 127 | MECHANICAL-TEXTILE MATERIALS | Fibres | Single Fibre Breaking Strength | ASTM D 3822-07 ( 2014), IS 235-1989 RA 2014, ISO 5079- 1995: 2014 | 0.5 CN to 1000 CN |
| 128 | MECHANICAL-TEXTILE MATERIALS | Fibres | Single Fibre Breaking Strength | ASTM D 3822-07 ( 2014 ), IS 235 - 1989 ( RA 2014 ), ISO 5079 - 1995: 2014 | 0.5 CN to 1000 CN |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 17 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 129 | MECHANICAL-TEXTILE MATERIALS | Fibres | Single Fibre Length measurement | BISFA standard 2007, ISO 6989-1981, IS 10014-Part 1-1984 RA 2008: 2007 | 5 mm to 200 mm |
| 130 | MECHANICAL-TEXTILE MATERIALS | Fibres, Yarns, Fabrics | Moisture Content Moisture Regain | ISO 6741-1 :1989 ASTM D 2654-89a IS 199-1989 RA 2016: 2016 | 0 % to 50 % |
| 131 | MECHANICAL-TEXTILE MATERIALS | GeoTextile/Nonwoven material | Weight | ISO 9864 : 2005 ASTM D 5261-10 (reapproved 2003) ISO 9073-1-1989 EDANA 40.3-1990: 1990 | 10 g/sqm to 6000 g/sqm |
| 132 | MECHANICAL-TEXTILE MATERIALS | Geotextiles, Nonwoven material | Wide Width Tensile Properties | ISO 10319 :2015 ASTM D 4595-17: 2015 | 100 N to 30000 N |
| 133 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/ Nonwoven materials | Index Puncture Resistance | ASTM D 4833-07 RA 2013: 2013 | 100 kgf to 5000 kgf |
| 134 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven material | Tensile Strength(Strip Test) | ISO 9073-3 :1989 ASTM D 5035-11 RA: 2015 | 100 N to 30000 N |
| 135 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Abrasion Resistance | STP/TT/Fa/C/107 Issue No 9: (based on BAW (Federal Waterway Engineering and Research Institute, Germany)Test method: 2018 | Qualitative(1 to 500000 cycles) |
| 136 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | CBR Puncture | ISO 12236 : 2006 ASTM D 6241: 2014 | 100 N to 30000 N |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 18 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 137 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Determination of water flow capacity in their Plane | ISO 12958-2010/ ASTM D 4716 - 2014: 2014 | 0.001 L/m.s to 10.0 L/m.s |
| 138 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Dynamic Perforation Test(Cone Drop) | ISO 13433-01: 2006 | 2 mm to 50 mm |
| 139 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Nominal Thickness at Secified Pressures | ASTM D 5199-12 ISO 9863-1, Method A-2005 ASTM D 1777-1996 (RA2015): 2015 | 0.05 KPa to 20 KPa |
| 140 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Seam/Join Tensile/Peeling Strength | ISO 10321-2008 ISO 13426-1: 2003 | 100 N to 30000 N |
| 141 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Tensile properties of Geogrids | ASTM D 6637: 2015 | 100 kgf to 30000 kgf |
| 142 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Tensile Strength (GrabTest) | ASTM D 4632-2015 ISO 9073-18: 2007 | 100 Kgf to 30000 Kgf |
| 143 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Trapezoidal Tear | ASTM D 4533-15 (Geo) ISO 9073-4 1997 IS 14293-1995(RA2014) EDANA 70.4-99: 1999 | 100 kgf to 30000 kgf |
| 144 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | UV Resistance(Measurement of Strength after 500 hrs Accelerated Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus) | ASTM D 4355: 2014 | 100 kgf to 30000 kgf |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 19 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 145 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Water Permeability by Permitivitty | ASTM D 4491-99a(2009) ISO 11058: 2015 | 1 mm/s to 100 mm/s |
| 146 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Water Permeability by Permittivity | ASTM D 4491-99a(2017) ISO 11058: 2015 | 0.05 s^-1 to 60 s^-1 |
| 147 | MECHANICAL-TEXTILE MATERIALS | Geotextiles/Nonwoven materials | Water permittivity Test(Under Load) | ISO 10776: 2012 | 0.001 L/m.s to 10.0 L/m.s |
| 148 | MECHANICAL-TEXTILE MATERIALS | Hi-Vis Fabric /Garment (Reflective material) | Coefficient of Retro-reflection | DIN EN ISO 20471-2017 EN 471 -2008-03 EN 1150 –1999 IS 14221-1998 RA2016: 2016 | 10 CD.lx-1.m2 to 2000 CD.lx-1.m2 |
| 149 | MECHANICAL-TEXTILE MATERIALS | Knitted Fabric, Garment | Stitch density / Knitted Fabric Construction | ASTM D 3887-96 (Reapproved 2008): 2008 | 20 per dm to 1000 per dm |
| 150 | MECHANICAL-TEXTILE MATERIALS | Protective Clothing (Gloves) | Blade Cut Resistance (Index) | EN 388 2003 (Sec 6.2): 2003 | 0.1 to 20 |
| 151 | MECHANICAL-TEXTILE MATERIALS | Protective Clothing (Gloves) | Puncture Resistance | EN 388 (Sec 6.4): 2003 | 100 N to 5000 N |
| 152 | MECHANICAL-TEXTILE MATERIALS | Protective Clothing/Garment/Accessories | Limited Flame Spread | ISO 15025:2016 IS 15758:2007 (Part 4) RA 2013 ISO 14116-2015: 2016 | 0.1 Sec to 3600 Sec |
| 153 | MECHANICAL-TEXTILE MATERIALS | Protective clothing/Garments/ Accessories | Contact Heat Transmission | ISO 12127-1:2015 EN 702: 1995 | 0.1 Sec to 3600 Sec |
| 154 | MECHANICAL-TEXTILE MATERIALS | Protective Clothing/Garments/ Accessories | Heat Transfer | ISO 17493-2016 NFPA 1975-1975 Section 8: 2014 | -50 % to 50 % |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 20 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 155 | MECHANICAL-TEXTILE MATERIALS | Protective Clothing/Garments/ Electrostatic Material | Electrical resistance | EN 1149-2: 1997 | 1000 ohm to 20000000000 ohm |
| 156 | MECHANICAL-TEXTILE MATERIALS | Protective Clothing/Garments/Accessories | Convective Heat Resistance | ISO 9151 2016, IS 15758 pART 1 RA 2013: 2013 | 0.1 s to 3600 s |
| 157 | MECHANICAL-TEXTILE MATERIALS | Protective Clothing/Garments/Accessories | Radiant Heat | ISO 6942 -2002 IS 15758 - 2007 (Part 2) RA 2013: 2007 | 0.1 Sec to 3600 Sec |
| 158 | MECHANICAL-TEXTILE MATERIALS | Protective Clothing/Garments/Electrostatic material | Surface Resistance and Surface Resistivity | EN 1149-1: 2006 | 1000 ohm to 20000000000 ohm |
| 159 | MECHANICAL-TEXTILE MATERIALS | Textile material, Plastic | Accelerated exposure of textile material using a controlled irradiance Xenon Arc apparatus | ASTM G 155 Cycle 1-2013 ISO 4892-2-2016 ISO 16474-1:2016 ASTM D 7869: 2017 | Qualitative(2 hours to 2000 hours) |
| 160 | MECHANICAL-TEXTILE MATERIALS | Textile material, Plastic | Standard Practice for UV exposure for Plastic | ASTM D 4329-2013 ASTM G 154-2016 ISO 4892-3-2016 ISO 16474-1:2013 IS 14887: 2014 | Qualitative(2 hours to 2000 hours) |
| 161 | MECHANICAL-TEXTILE MATERIALS | Textile material/Plastic | Accelerated exposure of Automotive interior trim components using a controlled irradiance Xenon Arc apparatus | SAE J 2412-2015 SAE J 1885: 2008 | Qualitative(2 hours to 2000 hours) |
| 162 | MECHANICAL-TEXTILE MATERIALS | Yarn | Yarn Unevenness(U%) | ISO 16549-2004, ASTM D 1425: 2014 | 1 % to 50 % |
| 163 | MECHANICAL-TEXTILE MATERIALS | Yarn | Yarn Unevenness(U%) | ISO 16549-2004, ASTM D 1425: 2014 | 1 % to 50 % |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 21 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 164 | MECHANICAL-TEXTILE MATERIALS | Yarns | Classification of long length rare occurring faults (Classimat Quantum Analysis) | ASTM D 6197-: 2017 | 0.1 /100km to 99999 /100km |
| 165 | MECHANICAL-TEXTILE MATERIALS | Yarns | Classification of long length rare occurring faults (Classimat Quantum Analysis) - Long thin | ASTM D 6197: 2017 | 0.1 /100 km to 99999 /100 km |
| 166 | MECHANICAL-TEXTILE MATERIALS | Yarns | Classification of long length rare occurring faults (Classimat Quantum Analysis) - Small thick | ASTM D 6197: 2017 | 0.1 /100 km to 99999 /100 km |
| 167 | MECHANICAL-TEXTILE MATERIALS | Yarns | Classification of long length rare occurring faults(Classimat Quantum Analysis) - Long thick | ASTM D 6197: 2017 | 0 /100km to 99999 /100km |
| 168 | MECHANICAL-TEXTILE MATERIALS | Yarns | Imperfections/Km (Thin, Thich, Neps), CVm%, Spectrogram | ISO 16549-2004; STP/TT/Y/7 Issue no.9 (Uster standard Test Method 1997): : 2016 | 0.1 /km to 9999 /km |
| 169 | MECHANICAL-TEXTILE MATERIALS | Yarns | Imperfections/Km (Thin, Thick & Neps), CVm%, Spectrogram | ISO 16549-2004; STP/TT/Y/7 Issue no.9 (Uster standard Test Method 1997): 2016 | 0.1 /km to 9999 /km |
| 170 | MECHANICAL-TEXTILE MATERIALS | Yarns | Lea Strength | ASTM D 1578-93(2016); IS 1315-1977 RA 2008 ISO 6939: 1988 | 10 kgf to 500 kgf |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| Laboratory Name | AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION(ATIRA), PO AMBAWADI VISTAR, AHMEDABAD, GUJARAT, INDIA | | |
| Accreditation Standard | ISO/IEC 17025:2017 | | |
| Certificate Number | TC-5097 | Page No. : | 22 / 22 |
| Validity | 18/01/2019 to 17/01/2021 | Last Amended on | 15/02/2019 |

| S.No | Discipline / Group | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing/ Limits of Detection |
|---|---|---|---|---|---|
| 171 | MECHANICAL-TEXTILE MATERIALS | Yarns | Single Yarn Strength | STP/TT/Y/11-Issue No.00-2018(Uster Standard Test method 1999): 2018 | 0.1 N to 990 N |
| 172 | MECHANICAL-TEXTILE MATERIALS | Yarns | Single Yarn Strength - Elongation | STP/TT/Y/11-Issue No.00(Uster Standard Test method 1999): 2018 | 1 % to 70 % |
| 173 | MECHANICAL-TEXTILE MATERIALS | Yarns | Single Yarn Strength and Elongation% | ASTM D 2256/ D 2256M 10 E1 RA 2015; IS 1670-1991 RA 2007 ISO 2062: 2009 | 1 N to 100 N |
| 174 | MECHANICAL-TEXTILE MATERIALS | Yarns | Single Yarn Strength and Elongation% | ASTM D 2256/ D 2256M 10 e1 RA 2015; IS 1670-1991 RA 2007 ISO 2062 : 2009: 2009 | 0.01 N to 99 N |
| 175 | MECHANICAL-TEXTILE MATERIALS | Yarns | Single Yarn Twist | ASTN D 1422-13; IS 832-1985 RA 1999; ISO 17202: 2002 | 40 TPM to 2400 TPM |
| 176 | MECHANICAL-TEXTILE MATERIALS | Yarns | Yarn Linear Density | ASTM D 1907/D 1907 M-12; IS 1315-1977 RA 2014 ; ISO 2060: 1994 | 0.05 Ne to 130 Ne |
| 177 | MECHANICAL-TEXTILE MATERIALS | Yarns | Yarn Twist | ASTM D 1423-02 RA 2008; IS 832-1985: Edition 2.2.(2000-03); ISO 2061: 2010 | 40 TPM to 2400 TPM |