

Laboratory	Northern India Textile Research Association, Sec-23, Raj Nagar, Ghaziabad, Uttar Pradesh		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	04.10.2016
Certificate Number	T-0852	Valid Until	03.10.2018
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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	TEXTILES (WOVEN & NON WOVEN)			
1.	Textile & Textile Accessories	pH value of aqueous extract	IS 1390 (Cold & Hot): 1983 (RA 2009) AATCC-81: 2012	1 pH to 14 pH
		Moisture Content	IS 199: 1989 (RA 2010)	0.1 % to 25 %
		Ash Content	IS 199: 1989 (RA 2010)	0.01 % to 10 %
		Free Formaldehyde	ISO 14184.1: 2011	5 mg/kg to 3500 mg/kg
		Colour fastness to Light/ Fade Resistance	IS 2454 : 1985 (RA 2010) ISO 105-B02: 2000(E) AATCC-16.3 .2014	(1 to 8) rating (1 to 5) grade
		Colour fastness to Crocking/ Rubbing	IS 766: 1988 (RA 2009) AATCC-8: 2013 ISO-105-X12:2009(E)	
		Colour fastness to laundering	ISO 105-C06: 2010 AATCC-61: 2013	(1 to 5) grade
		Dimensional Change after home laundering	AATCC-135: 2015	(-) 20 % to (+) 20 %
		Relaxation shrinkage	IS 2977: 1989 (RA 2005)	(-) 20 % to (+) 20 %
		Colour Fastness to Water	AATCC-107: 2012 EN ISO:105-E01: 2010 IS 767: 1988 (RA 2009)	(1 to 5) grade

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	Textile & Textile Accessories	Colour Fastness to Perspiration	IS 971: 1983 (RA 2009) AATCC-15:2009 ISO-105-E04:2008	(1 to 5) Grade
		Fibre identification	IS 667: 1981(RA 2008) AATCC-20: 2011	Qualitative
		Fiber Content/Blend Composition	IS 2005: 1988 (RA 2009) IS 2006: 1988 (RA 2004) IS 3416 (Pt I): 1988 (RA 2003) (Pt-II):1999 (RA 2003) BS 4407: 2002 (BS Handbook 11:1974 pg.5/37) AATCC-20A: 2012 (Cotton, Polyester, Rayon, Nylon, Wool, Acrylic, Meta & Para Aramid, Silk, Olefin, Acetate, Modacrylic, Spandex)	0.1 % to 100 %
		Water Soluble Matter	IS 3456: 1966 (RA2005)	0.01 % to 10 %
		Colour fastness to sea water	IS 690: 1988 (RA 2004) AATCC 106: 2009 EN ISO: 105 E02: 1996	(1 to 5) Grade
		Colour fastness to Dry cleaning	IS 4802: 1988 (RA 2004) AATCC: 132: 2009 ISO 105 D01: 2010	(1 to 5) Grade
		Colour fastness to washing	IS/ISO 105-C10:2010 ISO 105-C10:2006	(1 to 5) Grade

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	Textile & Textile Accessories	Heat shrinkage	IS 11248-C: 1995 (RA 2006)	0.01 % to 20 %
		Determination of Flammability and Flame resistance of Textile Fabrics	IS 11871: 1986 (RA 2004) Method A ASTM D6413: 2008 IS 11871: 1986 (RA 2004) Method B	After flame - 0 to 30 min. After glow - 0 to 30 min Char length - 0 to 305 mm Flame spread time – 0 to 30 min.
		Determination of burning behaviour by oxygen index Ambient-temperature test	ISO 4589-2: 1996 (Amd 1: 2005) IS 13501: 2008	Oxygen Index 18 to 100
		Textile Fabrics – Burning behaviour -Determination of Ease of Ignition of vertically oriented specimens	ISO 6940: 2004 IS 15589: 2005	Mean ignition time - 1 second to 20 seconds
		Textile Fabrics – Burning behavior –Measurement of Flame spread properties of vertically oriented specimens	ISO 6941: 2003 IS 15590: 2005	Time taken for severance of marker threads: 1st marker thread 2nd marker thread 3rd marker thread - 0 to 30 minutes
		Textiles – Burning behaviour of curtains and drapes	IS 15612 (Part 2): 2006 IS 15590: 2005 IS 15612 (Part 3): 2005, IS 15589: 2005	Time taken for severance of marker threads: 1st marker thread 2nd marker thread 3rd marker thread - 0 to 30 minutes Mean ignition time - 1 second to 20 seconds

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	Textile & Textile Accessories	Textiles – Burning behaviour of curtains and drapes	IS 15612 (Part 4): 2005 IS 15590: 2005	Time taken for severance of marker threads: 1st marker thread 2nd marker thread 3rd marker thread - 0 to 30 minutes
		Protective clothing- Assessment of materials And material assemblies when exposed to a source of radiant heat	ISO 6942: 2002 IS 15758 (Part 2) :2007	Radiant Heat transfer index (RHTI) at 24°C - 1 second to 150 seconds
		Protective clothing - Protection against heat and flame -- Method of test for limited flame spread	ISO 15025: 2000 Method A ISO 15025:2000 Method B	After flame - 0 to 30 min. After glow - 0 to 30 min.
		Textiles – Protective Clothing – Test Method for Limited Flame spread	IS 15758 (Part 4): 2007 Method A IS 15758 (Part 4): 2007 Method B	After flame - 0 to 30 min. After glow - 0 to 30 min.
		Protective clothing -- Assessment of resistance of materials to molten metal splash	ISO 9185 :2007 IS 15758 (Part 5): 2007	Aluminum 10 gms to 450 gms (Qualitative) Iron 10 gms to 300 gms (Qualitative)
		Specification for High-visibility warning clothing (excluding wet retro-reflective performance)	BS EN ISO 20471:2013 Chromaticity Co-Ordinates and luminance factor Section 7.2 Coefficient of retroreflection (cd/lx.m2) Section 7.3	x = 0.1 to 1 y= 0.1 to 1 β= 0.1 to 1 Upto 600

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	Textile & Textile Accessories	Determination of behavior of materials on impact of small splashes of molten metal	ISO 9150: 1988	1 to 100 (No. of drops to raise the temp. by 40 °C)
		Electrostatic properties Test method for measurement of surface resistivity, Test method for measurement of electrical resistance through a material (Vertical resistance)	EN 1149-1 & 2: 2006	1000 Ω to 20000 MΩ
		Determination of Contact Heat transmission through protective clothing or constituent materials- Test method using contact heat produced by heating cylinder	ISO 12127-1: 2007	1 second to 100 seconds (time to raise temp. by 10 °C)
		Method of determining of heat transmission on exposure to flame	ISO 9151: 1995, IS 15758 (Pt 1): 2007	1 second to 100 seconds (time taken to raise temp. by 24 °C)
		Flammability of Mattresses and Mattresses Pads	16 CFR 1632: 1985	Ignition/ Non Ignition (Qualitative)
		Burning behavior of bedding items- Part 2- Specified test methods for the ignitability by a smouldering cigarette	IS 15727 (Pt 2): 2007	Ignition/ Non Ignition (Qualitative)

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	Textile & Textile Accessories	Test for assessing the ignitability of upholstered seating when subjected to a smouldering cigarette	BS 5852: 2006 (Source 0)	Ignition/ Non Ignition (Qualitative)
		Specified test methods for assessing the ignitability of upholstered assemblies when subjected to a lighted match	BS 5852: 2006 (Source 1)	Ignition/ Non Ignition (Qualitative)
		Clothing and equipment for protection against heat- test method for convective heat resistance using a hot air circulating oven	ISO 17493: 2000	Shrinkage/Elongation (-) 20 % to (+) 20 %
		Deterioration of visibility due to smoke	UIC 564-2 (3 rd edition) Appendix 15	Class A/B/C
		Fire resistance test	UIC 564-2 (3 rd edition) Appendix 5	Class A/B/C
		Toxicity Index Test	NCD – 1409	0.1 to 25
II.	LEATHER			
1.	Leather	pH	IS 582: 1970(RA 2014)	1 pH to 14 pH
		Volatile matter %	IS 582: 1970(RA 2014)	0.01% to 30 %

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III. WATER				
1.	Water & Industrial Effluent	pH Value	APHA/4500-H+ B – Electrometric method APHA Hand book 2012, 22nd edition	1 pH to 14 pH
		Total Suspended Solids	APHA/ 2540 D-At 103-105 ⁰ C APHA Hand book 2012, 22nd edition	5 mg/l to 2000 mg/l
		Total Dissolved Solids	APHA/ 2540 C- At 180 ⁰ C APHA Hand book 2012, 22nd edition	5 mg/l to 5000 mg/l
		Biochemical Oxygen Demand	APHA/ 5210 B - 5 day BOD test APHA Hand book 2012, 22nd edition	5 mg/l to 2000 mg/l
		Chemical Oxygen Demand	APHA/ 5220 B-Open reflux method APHA Hand book 2012, 22nd edition	5 mg/l to 3000 mg/l
		Total Hardness	APHA/ 2340 C- EDTA Titrimetric method APHA Hand book 2012, 22nd edition	1 mg/l to 800 mg/l
		Chlorides	APHA/4500 Cl- B- Argentometric method APHA Hand book 2012, 22nd edition	1 mg/l to 1500 mg/l

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	Water & Industrial Effluent	Sulfates	APHA/ 4500-SO4—E-Turbidimetric method APHA Hand book 2012, 22nd edition	1 mg/l to 160 mg/l
		Oil & Grease	APHA/5520 B-Partition gravimetric method APHA Hand book 2012, 22nd edition	1 mg/l to 100 mg/l
		Iron	APHA/ 3500-Fe B-Phenanthroline method APHA Hand book 2012, 22nd edition	0.01 mg/l to 2.0 mg/l

-X-X-X-X-X-X-X-X-X-X-X-X-