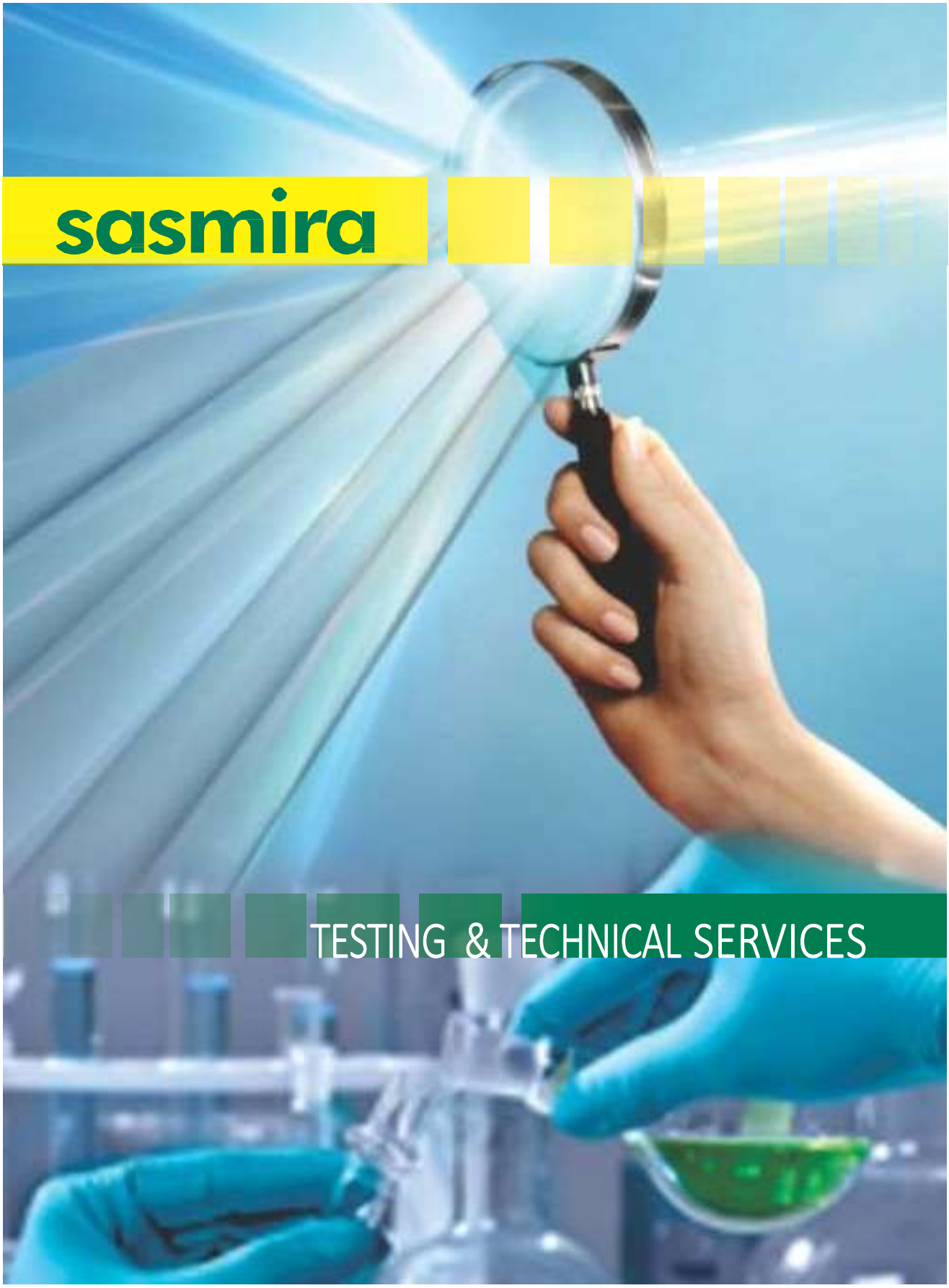
sasmira
TESTING & TECHNICAL SERVICES

Quality Policy

- To offer accurate, reliable and reproducible testing services, following appropriate national, international or validated test method, to the customers as a third-party reference laboratory.
- To ensure entire satisfaction of the customer in a professional and impartial manner.
- To ensure effective implementation of the Management System as per ISO/IEC 17025:2017 (E) and other specific criteria of Accreditation Body.
- To familiarize all personnel concerned with testing activities within the laboratory with the quality documentation and implementation of the policies and procedures in their work.
- To continually strive to improve the effectiveness of the management system.

Objectives

- Ensuring adequate competency level of staff.
- Using latest National / International or validated in-house test methods
- Utilising modern equipment/calibrated instruments to offer quality-testing services.
- Ensuring adequate corrective action on complaints.
- Ensuring effectiveness of Management system implemented.
- Ensuring updating of the Management system and its continuous improvement.
- To participate in inter laboratory/ proficiency testing program

A Word from Expert

SASMIRA Laboratories is a nationwide testing facility for textiles and allied substrates, delivering reliable services for over 75 years. Established in 1950, SASMIRA is among India's largest and most trusted testing laboratories, integrating advanced technology with deep technical expertise to deliver "Total Performance You Can Count On."

Quality is central to our philosophy because we value our customers and their confidence in our services. We are committed to delivering results that meet—and often exceed—their expectations. To ensure this, we operate a robust Quality Management System (QMS) that drives continuous improvement, provides measurable performance indicators, and strengthens our service delivery.

Our laboratory is accredited nationally by the National Accreditation Board for Testing and Calibration Laboratories (NABL) and internationally certified by the International Antimicrobial Council (IAC), USA. SASMIRA is also a BIS-empaneled laboratory for 30 specifications across Agrotextiles, Geotextiles, and Medical Textiles.

For more than seven decades, SASMIRA has been delivering comprehensive testing services to textile manufacturers, traders, exporters, government agencies, and R&D institutes. Our expertise spans manmade and synthetic textiles, allied products, toys, hazardous chemicals, cosmetics, disinfectants, and hygiene products. Our test reports are widely recognized and accepted across national and international platforms.

DEPUTY DIRECTOR

ABOUT SASMIRA

The Synthetic and Art Silk Mills' Research Association (SASMIRA) was established on 12th January 1950 under Registration No. 2505 of 1949–1950, granted under the Societies Act XXI of 1860. Conceived as a cooperative initiative by the Indian man-made textile industry in the post-independence era, SASMIRA was envisioned as a multi-functional institute to address the sector's scientific, technological, and developmental needs.

During that decade, the pioneers of the silk and art silk industry—largely comprising numerous small-scale units—demonstrated remarkable foresight in proposing the creation of a cooperative research organization. Their vision received strong support from the Council of Scientific and Industrial Research (CSIR) and other Government agencies, ultimately leading to the establishment of SASMIRA, previously known as the Silk and Art Silk Mills' Research Association. Commencing with the testing of silk and art silk materials, SASMIRA has geared its activities since then to meet the changing needs of the man-made textile industry thereby fulfilling its objectives. At present, SASMIRA is an Approved body of the Ministry of Textiles, Government of India.

SASMIRA's ACTIVITIES

SASMIRA has multifaceted developmental activities including R&D, Testing and Technical Services, Skill development programs, HRD and continues to serve as a premier institution supporting research, development, testing, technology dissemination, and industry advancement.

The major areas of functioning at SASMIRA are listed as below:

- Research and Development
- Technical Services and Testing Labs
- Instrumentation
- Publications
- Centre of Excellence- Agro textiles
- Pilot Plant (weaving/spinning/ knitting)
- Powerloom Service Centres at Bhiwandi
- Human Resource Development

Testing and Technical Services

SASMIRA Laboratories is equipped with state-of-the-art instruments to perform mechanical, chemical, microbiological, and analytical testing across a wide range of products including textiles, toys, cosmetics, disinfectants, hygiene products, and restricted/hazardous chemicals. The laboratory also offers specialized testing services for Technical Textiles.

SASMIRA is nationally accredited by the National Accreditation Board for Testing & Calibration Laboratories (NABL), India, as per ISO/IEC 17025:2017, and internationally certified by the International Antimicrobial Council (IAC), USA. In addition, SASMIRA is BIS-empaneled for various Technical Textile product categories. These accreditations and certifications underscore SASMIRA's commitment to delivering accurate, reliable, and timely testing services with the highest standards of quality.

The laboratory facilities are utilized by a diverse spectrum of stakeholders including textile manufacturers, suppliers, import–export organizations, Government agencies, R&D institutions, and academic bodies. Testing is conducted in accordance with the latest national and international standards such as IS, ISO, ASTM, DIN, BS-EN, JIS, and AATCC.

SASMIRA's laboratory infrastructure includes advanced analytical instruments such as HPLC, HPTLC, GC-MS, DSC, TGA, CHNS, UV-Vis spectrophotometers, and more. These capabilities enable comprehensive evaluation of hazardous and restricted chemicals in textiles, toys, leather, hygiene products, and allied materials.

The Microbiology Laboratory offers a wide range of testing services for textiles, plastics, cosmetics, disinfectants, and hygiene products.

In addition to laboratory testing, SASMIRA provides a suite of technical and consultancy services, including:

- Fabric defect analysis and preventive recommendations
- Fabric structure and design analysis
- Computer-aided textile design
- Assistance in resolving manufacturing and finishing-related technical issues
- Recommendations for quality improvement and productivity enhancement

Man-Made Fibers and Polymers

Sr. No	Test Parameter	Standard Test Method
1	Moisture Content	IS 199
2	Fiber Length	IS 10014 (Part 1)
		ASTM 5103
4	Fiber Denier	ASTM D 1577
5	Fiber Strength/Tenacity & Elongation	IS 235
		ISO 5079
		ASTM 3822
6	Fiber Strength of Carbon fiber	ASTM D 3379
7	Fiber Diameter	Microscopic Method
8	% Hollowness	Microscopic Method
9	Crimp per cm	ASTM D 3937
10	Intrinsic viscosity (IV)	ASTM D 4603
11	Melting point	Hot plate
12	Glass Transition Temp (TG)	DSC method
13	% Spin finish	IS 9068
14	% Hot air Shrinkage	ASTM D 2102
15	Boiling Water Shrinkage	ASTM D 2102
16	Oligomer Content	In House Method
17	Density of material	In House Method

Wool Fibre		
Sr. No.	**Test Parameter**	**Standard Test Method**
1	Fiber Length	IS 6637/ IS199 ASTM D 1576
2	Fiber Denier	IS1377
3	Fiber Strength	ASTM D 1577
4	Fiber Diameter	IS 235
5	Wool Content of Raw Wool	IS 744
6	Length of staple bers (removed from yarns	ASTM D584
7	Fiber Length	Text Book Method

Yarns (Physical Parameters)		
Sr. No.	**Test Parameter**	**Standard Test Method**
1	Moisture Content	IS 199
2	No of laments (Multi lament Yarns)	Manual Counting
		Upto 75
		Above 75
3	Lea Count with % CV for max 30 readings	IS1315
		ASTM D 1907
		ISO 2060
	† Count for additional 10 leas	IS 7703 (Part I)
	† Extra printout	
4	Lea Strength with CV % for max 30 readings	IS 1671
	† Strength for additional 10 leas	
	† Extra printout	
5	CSP (Count Strength Product)	IS 1671
6	Single yarn strength with Elongation /	IS 7703 (Part II)
		IS1670
		ASTM D 2256
	tenacity / RKM or max 50 readings	
	† Strength for additional 10 readings	

	† Extra printout	
6(a)	Yarn strength from fabric	IS 1670
7	Elastic recovery of yarn	Cyclic method
8	Unevenness (U%) Yarn / Roving / Sliver Extra charges for † Imperfection (thick, thin and neps) † Extra printout	ASTM D 1425 IS 7703 Part V (Filament yarn)
9	Twist per unit length with direction of twist † Single yarn † plied yarn † Single of plied yarn / cabled yarn † Balance of Twist	IS 832 ASTM D 1422 ASTM D 1423 ISO 7211-4 IS 832
10	Hot Crimp Contraction (HCC, %)	ASTM D 204 Heberlien Method
11	Crimp rigidity	HATRA Method
12	Coefficient of Friction	
	† Yarn to Yarn	ASTM D 3412
	† Yarn to Metal	ASTM D 3108
13	Hot Air Shrinkage	ASTM D 2259
14	Boiling Water Shrinkage	ASTM D 2259
15	Length of yarn on spool	In House-method
16	Type of Yarn	
17	Yarn Diameter	Microscopic method

Fabric: Woven and Knitted Physical Parameters

Sr. No.	**Test Parameter**	**Standard Test Method**
1	Moisture content	IS 199
2	Type of weave/ knitting	Text book method IS 1954
3	Width and length	ASTM D 3773
		ASTM D 3774
		ISO 22198
4	Dimensions of Hand gloves / socks / other items † Upto 5 measurements † More than 5 measurements	IS 6994
5	Skewness / bowing of fabric / Garment	ASTM D 3882
6	Thickness of fabric/garment	IS 7702
		ASTM D 1777
7	Threads per unit length	IS 1963
		ASTM D 3775
		ISO 7211-2
8	Weight / Sq meter	**IS 1964**
9	Weight / linear meter † As received † After removal of non brous matter † After removal of coating	ASTM D 3776
		ISO 7211 (Part 6),
		ISO 3801
10	Count of Warp and Weft † As received †After removal of non Fibrous matter †After removal of coating	IS 3442 ISO 7211(Part 5) ASTM D 1059
11	Cover factor (Inclusive of count and threads per unit length)	Text book method
12	% Crimp	IS 3442
13	Twist of the yarn removed from the fabric	IS 832
14	Design (Weave)	Visual
15	Tensile strength with elongation of woven fabric Ravelled/ Cut strip	IS1969
		ASTM D 5035

		ISO 13934 (Part 1)
16	Tensile strength Grab Method	ISO 13934 (Part 2) IS1969 ASTM D 5034
17	Tensile strength of Rope /Webbing	IS 7071 Part IV
		IS 5175
18	Tensile strength of Braided Nylon or other Cords	IS 4227
19	Seam slippage	ASTM D 1683
		ISO 13936 -1
20	Seam strength	ASTM D 1683
		ISO 13935-2
21	Tear Strength--Elmendorf	ASTM D 1424
		ISO 13937 -1
23	Tear Strength- Single rip	ASTM D 2261, ISO 13937-2
24	Tear Strength--Double tongue	IS 7016 Part III
25	Tear Strength--Trapezoid (Non woven)	ASTM D 5587
25	Bursting strength (Diaphragm Method) without distension	IS 1966-1 ASTM D 3786 ISO 13938-1

ABRASION, PILLING AND FLEXING		
Sr No	**Test Parameter**	**Std Test Method**
24	Abrasion Resistance by Martindale Tester	IS 12673
		ASTM D 4966
		ISO 12947 -1,2,3,4
	† Upto 10000 rubs	
	† Upto 15000 rubs	
	† Upto 20000 rubs	
	Extra amt. for additional 10,000 rubs	
25	Taber Abrasion	ASTM D 3884
26	Flexing Abrasion(Schildknecht)	IS7016 part 4
	† Upto 1,00,000 cycles & Dmatia	
	† Upto 2,00,000 cycles	
	† Upto 3,00,000 cycles	
27	Pilling resistance (Martindale)	ASTM D 4970
28	Pilling resistance (Pill box method)	ISO 12945- Part I
		IS 10971
	AIR AND WATER PERMEABILITY	
29	Air permeability (Woven)	IS 11056, ASTM D 737, ISO 9237
30	Air permeability (Non woven)	ISO 9073-15
31	Water vapor permeability	ASTM E-96
	COMFORT PROPERTIES OF FABRIC	
32	Crease recovery Dry/wet	IS 4681,
33	Stiffness test	IS 6490
		ASTM D 1388
34	Drape Coefficient	IS 8357
		ISO 9073-9
35	Thermal conductivity	ASTM C 518

NONWOVEN TESTING		
Sr No	**Test Parameter**	**Std Test Method**
1	Tensile Strength	ASTM D 5034/5035
	Strip method/ cut method	ISO 13934-1
		WSP110.4
2	Grab test	ASTM D 4632
		WSP110.1
3	Wide width Breaking strength	ASTM D 4595,
		ISO 10319
4	Tear strength -- Trapezoid	ASTM D 4533
		WSP100.2
	Tear Strength – Tongue Tear	WSP 100.3
5	Abrasion Resistance , Martindale tester	ASTM D 4966,
		ISO 12947-1,2,3,4
	† Upto 10000 rubs	WSP20.2
	† Upto 15000 rubs	
	† Upto 20000 rubs	
6	Taber Abrasion	ASTM D 3884
7	Apparent Opening size (AOS)	ASTM D 4751
8	Air permeability (Upto 10 ")	ASTM D 737
		ISO 9237
		WSP 70.1
9	Bursting Strength (Diaphragm)	IS, 1966
		ASTM D 3786
		ISO 13938-1
		WSP30.1
10	Flexing Abrasion Schildknecht m/c	IS 7016 part 4
	† Upto 1,00,000 cycles & Dmatia	
	† Upto 2,00,000 cycles	
	† Upto 3,00,000 cycles	
11	Index puncture Resistance	ASTM D 4833
12	CBR Puncture resistance	ASTM D 6241
		ISO 12236
14	Cone drop (Geotextiles)	BSEN 918
15	Resistance to flame	IS1259
16	Exposure to UVA For 500 hrs	ASTM G 154 ,
		AS 4174
17	Exposure to UVB For 144 hrs	IS7903
18	Exposure to Xenon For 500 hrs	ASTM D 4355
		SAE J 2412
19	Exposure to Xenon For 500 hrs	G155 -98 (102/18 Cycle)
	Every additional100 hrs or part thereof	

20	Mass per unit area of fabric	ASTM D 5261
21	Stiffness test	ASTM D 1388
22	Drape %(Cuisick Drape)	ISO 9073-9
23	Water permeability by permittivity cross plane	ASTM D 4491

Agrotextile Testing -
Shade Nets / Bird Net / Fish Net / Hail Net / Insect Net

Sr No	**Test Parameter**	**Std Test Method**
1	GSM	IS 16008 / IS 1964
2	Bursting Strength	IS16008 / IS 1966
3	Shading %	IS 16008 Part 1
4	Breaking Strength & % Elongation	IS 16008 / IS 1969
5	Colour Fastness to light	IS 16008 / IS 2454
6	Exposure to UVB for 144 hrs	IS 16008 Annex B /
7	Shading %	IS 7903
8	Haze %	IS 16008 Part 2
9	Wind Blockage %	ASTM D 1003
10	Mesh Size in Microns	In house
11	Diameter of Yarn	Visual
12	Impact Tear Resistance	Microscopic
13	Index Puncture	ASTM D 1709
14	CBR Puncture Resistance	ASTM D 4833
15	Mesh Breaking strength	ASTM D 6241 ISO 1806
16	Identification of material	IS 667
17	Exposure to UVA for 500 hrs	ASTM G 154
18	Exposure to UVA for 2000 hrs	AS 4174

Geotextiles and Technical Textiles

SN	Test Parameter	Std Test Method
1	Tensile Strength	ASTM D 5034/5035
	†Cord /Webbing / Braided Nylon / Rope / Coated fabric	IS 2965
		IS 4227
2	Grab test	ASTM D 4632
3	Wide width Breaking strength	ASTM D 4595
		ISO 10319
4	Tear strength -- Trapezoid	ASTM D 4533
5	Abrasion Resistance , Martindle tester	ASTM D 4966, ISO 12947-1,2,3,4
	Upto 10, 000 Rubs	IS 12673-1,2,3,4
	Upto 15, 000 Rubs	ASTM D 4966
	Upto 20, 000 Rubs	
	Extra Amt. for additional 10000 rubs	
6	Taber Abrasion	ASTM D 3884
7	Apperanent Opening size (AOS)	ASTM D 4751
8	Air permeability (Upto 10 ")	ASTM D 737
		ISO 9237
9	Flexing Abrasion Schildknecht	IS 7016 part 4
	† Upto 1,00,000 cycles &	
	† Upto 2,00,000 cycles	
	† Upto 3,00,000 cycles	
10	Index puncture Resistance	ASTM D
11	CBR Puncture resistance	ASTM D 6241, ISO 12236
12	Adhesion of coating	IS 7016 part5IS1259
13	Cone drop (Geotextiles)	BSEN 918
14	Resistance to flame	IS1259
15	Exposure to UV	ASTM G 154, AS 4174
	For 500 hrs	IS7903
	Every additional100 hrs or part thereof	
16	Exposure to Xenon arc lamp	ASTM D 4355
		SAE J 2412
	For 500 hrs	G155 -98 (102/18 Cycle)
17	Every additional100hrs or part thereof	
18	Water permeability by permittivity cross plane	ASTM D 4491
19	Accelerated creep Test	ASTM D 6992
20	Conventional creep Test	ASTM D 5262

	TERRY TOWEL ANALYSIS	
Sr No	**Test Parameter**	**Std Test Method**
1	Length of the towel piece	IS1954
2	Width of the towel piece	IS1954
3	Weight of full piece	IS1964
4	Weight per square metre	IS1964
5	Count of warp , weft and Pile	IS3442
6	Construction –Warp ,weft, and pile	IS1963
7	Breaking strength (warp and weft)	IS1969
8	Pile ratio	-
10	Absorbency	IS 2369, AATCC 79

	COATED FABRICS	
Sr No	**Test Parameter**	**Std Test Method**
	Length and Width	IS 7016 Part I
1	GSM	IS 7016 Part I
2	Tensile Strength & % Elongation	IS 7016 Part II
3	Tear strength–Single Rip	IS 7016 Part III A2
4	Tear strength–Double Rip	IS 7016 Part III A1
5	Resistance to flexing (1 Lakh cycles)	IS 7016 Part IV
6	Resistance to flexing (3 Lakh cycles)	IS 7016 Part IV
7	Peel adhesion strength	IS 7016 Part V
8	Bursting strength	IS 7016 Part VI -B
9	Water Proofness (Pressure head test)	IS 7016 VII
10	Flammability Test	IS 1259
11	Accelerated Ageing (7days at 70 deg)	IS 7016 Part VII
12	Blocking Resistance	IS 7016 Part IX
13	Exposure to UVA for 500 hrs	ASTM G 154
14	Exposure to Xenon lamp for 500 hrs	ASTM D 4355
15	Exposure to Xenon lamp for 500 hrs	SAE J 2412
16	Exposure to Xenon lamp for 500 hrs	G155 (102/18 cycle)
17	Flexing Abrasion (Schildknecht) Upto 1,00,000 cycles	IS 7016 Part 4
	Upto 2,00,000 cycles	
	Upto 3,00,000 cycles	

	TOY TESTING	
Sr No	**Test Parameter**	**Std Test Method**
1.	Sharp edge test	IS 9873 Part 1, ISO 8124-1,
		ASTM F 963, EN 71-1
2.	Sharp point test	IS 9873 Part 1, ISO 8124-1,
		ASTM F 963, EN 71-1
3.	Small part cylinder	IS 9873 Part 1, ISO 8124-1,
		ASTM F 963, EN 71-1
4.	Durability of mouth-actuated toys	IS 9873 Part 1, ISO 8124-1,
		ASTM F 963, EN 71-1
5.	Accessibility of a part or component	IS 9873 Part 1, ISO 8124-1,
		ASTM F 963, EN 71-1
6	Flammability	IS 9873 Part 2, ISO 8124-2,
		ASTM F 963, EN 71-2
7	Migration of certain elements in Toys and their products	IS 9873 Part 3, ISO 8124-3
8	Phthalate esters in toys and children's products	IS 9873 Part 6 & 9, ISO 8124-6
9	Estimation of primary aromatic amines in finger paints	IS 9873 Part 7, ISO 8124-7

CHEMICAL PARAMETERS		
Sr No	**Test Parameter**	**Std Test Method**
1	Identification of fiber	IS 667, AATCC 20, ISO 1833
2	%Blend composition	
	Two components	AATCC – 20A, ISO1833
	As received conditions	IS 3416 (Polyester+Cotton)
		or (Polyester+Viscose)
		IS 3421 (Acrylic+ Others)
		IS 9889 (Silk+ Wool)
		IS 2006 (Wool+Others)
		IS 6503 and 2005 (Nylon +Others)
		IS1889 Part(4) (Cotton + Viscose)
2 (a)	Each additional component	
2 (b)	Removal of non fibrous matters for %Blend composition for two components	IS 9068, In House Method
3	Identification of Coating	In-house Method
4	Identification of other than textile material like beads, plastic trims etc.	In-house Method
5	**COLOR CHARACTERISTICS**	
a.	Color difference	AATCC 173
b.	Delta E of fabric (Std dyed fabric required)	By Spectrophotometer.
c.	Delta E of dye(Std Dye required)	By Spectrophotometer.
d.	Reflectance Curve	By Spectrophotometer.
6	Whiteness Index/ Yellowness evaluation	AATCC 110
7	Application of dye on the textile material	Text Book Method
8	Identification of Dyes	IS -4472 Part I, II,III
9	Color fastness to Washing with multi fiber fabric	IS,ISOand AATCC methods
a	† at 40 ^{0}C (Test-1)	IS/ ISO 105 A (1)
b	† at 50 ^{0}C (Test-II)	IS/ ISO 105 B (2)
c	† at 60 ^{0}C (Test-III)	IS/ISO 105 C (3)

d	† at 95 ^{0}C for 30 minutes (Test-IV)	IS / ISO 105 D (4)
e	†at 95 ^{0}C (FOR 4 HRS)	IS/ISO105 E (5)
f	Extra charges Additional washing of 30 minutes	
10	Color fastness to Light (Xenon lamp)	AATCC 16.3
a	† 20 AFU	
b	† 40 AFU	
c	† 80 AFU	
11	Color fastness to Light (Xenon lamp)	IS/ISO 105 BO2
a	† Blue Wool Standard---4	
b	† Blue Wool Standard---5	
c	† Blue Wool Standard---6	
d	† Blue Wool Standard---7	
e	† Blue Wool Standard---8	
12	Color fastness to Artificial weathering	ISO 105 B O4, IS-6152 AATCC 11
		AATCC 169 (max 640 Fading units)
13	Color fastness to Hot pressing (Dry/Damp /Wet)	IS/ISO105X11, AATCC 133
14	Color fastness to Rubbing / Crocking	IS/ISO 105X11, AATCC 8, ISO 105 –X12
15	Color fastness to Organic Solvent	IS 688, ISO 105 X05
16	Color fastness to Water	IS 767, AATCC 107 , ISO 105 EO1
17	Color fastness to Sea water	IS 690, ISO 105 EO2, AATCC 106
18	Color fastness to Chlorinated pool water	IS 4803
19	Color fastness to Perspiration (Acidic / Alkaline)	IS 971, ISO 105EO4 AATCC 15
20	Color fastness to Dry Cleaning	IS/ ISO 105 D01, AATCC 132
21	Color fastness to Saliva	DIN V 53160
22	Color fastness to Bleaching	IS 762, IS 763
23	Color fastness to Laundering (Home or Commercial) for one wash	AATCC 61, ISO105-CO6
24	Color fastness to Acid spotting	AATCC 06, ISO 105 E O5, IS 968

25	Color fastness to Alkali spotting	AATCC06, ISO 105 CE O6, IS 977
26	Color fastness to Water spotting	AATCC 104
27	Color fastness to Solvent spotting (Perchloroethylene)	AATCC 157
28	Care labelling with symbols	Standard norm
29	Care labelling with comments	Standard norm
30	Dimensional Stability (Relaxation Shrinkage, Cold water	IS 2977
31	Dimensional changes of fabric after Home laundering	AATCC 135, ISO 6330
32	Dimensional changes of Garment after Home laundering	AATCC 150, ISO 6330
33	Dimensional changes and appearance of fabric after Home laundering	AATCC 144
34	Dimensional stability after exposure to dry heat	AATCC 117
	Dimensional Change to heat	IS 12170
35	Domestic Washing and Drying	ISO6330:2008
		ISO 3759
		ISO 5077
36	Spirality and Skewing in Woven and Knitted fabrics	ASTM D 3882, AATCC 179,1S0 16322 -2
	Including one wash	1S0 16322 -3
	Each additional wash	
	With Dimensional stability	
37	Appearance of Garment after Home laundering	
a	Smoothness Appearance	AATCC 124, ISO 7768
38	Soil Release oily stain Release method	AATCC 130
39	pH of aqueous extract	IS 1390, ISO 3071,AATCC 81
40	Residual Starch on bleached fabric	IS 1967
41	Removal of non-fibrous matters	IS9068, Inhouse method
42	Water soluble matter (Cold/ Hot)	IS 3456
43	Resistance to Acid at diff concentration	Text Book Method

44	Resistance to Alkali at diff concentration	Text Book Method
45	Resistance to other chemical	Text Book Method
46	Flammability	IS11871
47	Inclined flammability test	IS11871, ASTMD 1230
48	Vertical flammability test	IS11871,ASTM D 6413,BS3119
49	Horizontal flammability test	FMVSS 302
50	Vertical and side edge Flammability test	BS EN ISO 6940, 6941, BS EN 1101, 1102 , 1103
		BSEN ISO 15025, BS EN 532
		BS EN 13772
51	Flammability test (Horizontal and Vertical)	IS 15061 (Annex A, B and C)
52	Block test	Text Book Method , IS 7016 Part-9
53	Heat resistance	
a.	for 20 hrs	
b.	for 40 hrs	
c.	for 60 hrs	
d.	For additional 20hrs	
54	Heat ageing 70 °C for 168 hrs	
55	Melting point	DSC method
56	Glass transition temp (TG)	DSC method
57	Electostatic Clinging of Fabric: Fabric to metal	AATCC 115
58	Weight of SAP (Super Absorbent Polymer)	Text Book Method
59	Absorbency of sanitary napkin in gm or ml	Text Book Method
60	Wicking rate	Text Book Method
61	Ash Content	Text Book Method
75	Solid Content	DIN 53189
79	Presence fluorescence	Text Book Method
80	Phenolic Yellowing	Text Book Method
81	Water Extractable matter	Text Book Method
82	Water repellency (Spray Test)	IS 390, AATCC 22
83	Water Repellency (Bundessman)	IS 392, ISO 9865
84	Water Proofness (Cone Test)	IS 7941
85	Water Proofness (Hydrostatic Pressure head Test)	IS 7016 Part 7
		IS 391, IS 7940
86	Odour Test	Text Book Method
87	Scouring loss%	IS 1383

88	Flammability	UL-94
	Flammability	IS 9873 Part 2, ISO 8124-2
		ASTM D 963, EN 71-2
89	Colour Fastness to Bleaching with Hypochlorite	ISO 105 N01:1993
90	Colour Fastness to Bleaching with Peroxide	ISO 105 N02 :1993
91	Fibre Ropes General Specification:Effect of Chemical Exposure	ISO 9554 Annex D-2019
92	Method to Determine Melting Temperature of Synthetic Fibres	ASTM D 7138-2016
93	Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture, and Heat in a Xenon Arc-Type Apparatus1	ASTM D 4355-21
94	Standard Practice for Operating Xenon Arc Lamp Apparatus for Exposure of Materials	ASTM G 155-21
95	Specification Vinyl Coated Fabric: Determination of Dimensional Change	IS 1259:2022 Annex E
96	Specification Vinyl Coated Fabric: Bleeding Test	IS 1259:2022 Clause 8.17
97	Specification Vinyl Coated Fabric: Surface Resistance to Chemicals	IS 1259:2022 Clause 8.18
98	Specification Vinyl Coated Fabric: Resistance to Heat & Loss of Mass on Heating	IS 1259:2022 Annex B

MICROBIOLOGY TESTING

Sr. No	Test Parameter	Standard Method
1.	Antibacterial Activity Assessment of Textile materials: Parallel Streak Method	AATCC 147
2.	Antibacterial finishes on Textiles Materials: Assessment of	AATCC 100
3.	Antifungal Activity, Assessment of Textile Material :	AATCC 30 (Part 2)
4.	Antifungal Activity, Assessment of Textile Material :	AATCC 30 (Part 3)
5.	Standard test method for determining the anti-microbial activity of antimicrobial agents under dynamic contact conditions	ASTM E 2149
6.	Testing for antibacterial activity and efficacy on textile products	JIS L 1902
7.	Textile fabrics – Determination of Antibacterial activity – Agar diffusion plate test.	ISO 20645
8.	Determination of Antibacterial Activity of Antibacterial finished products	ISO 20743
9.	Antimicrobial Activity Assessment of New Carpets	AATCC 174
10.	Methods for testing cotton fabrics for resistance to attack by micro-organisms	**IS 1389**
11.	Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi	ASTM G21
PLASTIC/ NON - POROUS MATERIAL		
12.	Antibacterial Products -- Test For Antibacterial Activity And Efficacy	JIS Z 2801
13.	Measurement Of Antibacterial Activity On Plastics And Other Non-Porous Surfaces	ISO 22196
14.	Standard Test Method For Determining The Activity Of Incorporated Antimicrobial Agent(S) In Polymeric Or Hydrophobic Materials	ASTM E 2180
BIOBURDEN		
15.	Sterilization of health care products - Microbiological methods – Part 1: Determination of a population of microorganisms on products	ISO 11737-1
16.	Microbiological examination of non-sterile products(Total viable aerobic count and test for specific Micro-organisms)	European Pharmacopoeia

COSMETIC		
17.	Methods of Test for Microbiological Examination of Cosmetics And Cosmetic Raw Materials	IS 14648
DISINFECTANTS/SANITIZERS/LIQUID HANDWASH ETC.		
18.	Standard Guide for Assessment of Antimicrobial Activity Using a Time-Kill Procedure	ASTM E 2315

ANALYTICAL TESTING

Sr. No	INSTRUMENTS	Test Parameter
1	Gas Chromatography Mass Spectrometry(GCMS), Shimadzu	Detection of volatile compounds, Monomer, Phthalates, PCB in Pigments , Azo Free, PAH, Phenol , BPA , Chlorobenzene,Hydrocarbons etc.
2	UV-Vis Spectrophotometer, Shimadzu	Detection of λ-max and absorbency, Free & Released Formaldehyde, Cr(VI)in Leather
3	High Performance Liquid Chromatography (HPLC), Shimadzu	Azo Free, Carcinogenic Dyes, Cr(VI)inDyes & Pigments , Formaldehyde in Auxilliaries
4	High Performance Thin Layer Chromatography (HPTLC), Camag	Detection of banned amines & pesticides
5	Differential Scanning Calorimetry (DSC) and Thermo Gravimetric analysis (TGA), PerkinElmer	Determination of Tg, melting point and thermal degradation analysis
6	Particle Size Analyzer, Cordouan	Determining particle size of compounds
7	Fourier-transform infrared spectroscopy (FTIR), Perkin Elmer	Fingerprint region identification of functional groups
8	CHNS/O Analyser, Thermo Fisher Scientific	Detection of C, H, N, S and O in compounds
9	Scanning Electron Microscope (SEM) with EDS,Tescan	Analysis of surface topography, and metal detection
10	Atomic Adsorption Spectroscopy (AAS), ThermoFisher Scientific	Detection of Total & Extractable heavy metals (As, Cd, Mn, Na, Fe, Cr, Cu, Hg,Pb, Ca, Mg, K etc.)

STANDARDS/ SPECIFICATIONS UNDER BIS EMPANELMENT

S. No.	Specifications	Standard
1	Textiles – Polyester blended woven shirting for uniforms	IS 15852
2	Textiles – Polyester blended woven suiting for uniforms	IS 15853
3	Agro textiles "Insect nets for agriculture and horticulture purposes" Specification	IS 16513
4	Textiles -Cotton Towelling and Towels - Specification (Second revison)	IS 7056
5	Textiles Bedsheets Pillow cover and Blanket Cover Specification	IS 18739
6	Textiles - Sandwich extrusion laminated polypropylene PP woven sacks for packaging bulk commodities - Specification	IS 18482
7	Textiles - Polypropylene (PP)/ High Density Polyethylene (HDPE) Laminated Woven Sacks for Mail Sorting, Storage, Transport and Distribution - Specification	IS 17399
8	Textiles - High density polyethylene (HDPE) polypropylene (PP) woven sacks for packaging of 25 kg polymer materials - Specification	IS 16703
9	Textiles - Polypropylene (PP) woven, laminated, block bottom valve sacks for packaging of 50 kg cement - Specification	IS 16709
10	Textiles - High Density Polyethylene (HDPE) / Polypropylene (pp) Woven Sacks for Packing Fertilizers	IS 9755
11	Agro-Textiles Hail Protection Nets for Agriculture and Horticulture Purposes Specification Part 2 Woven Hail Protection Nets	IS 17730 : Part 2
12	Agro-Textiles Hail Protection Nets for Agriculture and Horticulture Purposes Specification Part 1 Warp Knitted Hail Protection Nets	IS 17730 : Part 1
13	Medical textiles – Shoe covers – Specification	IS 17349
14	Medical textiles – Dental bib/Napkins – Specification	IS 17354
15	Reusable Sanitary PadSanitary Napkin Period panties Specification	IS 17514

16	Agro textiles – High density polyethylene (HDPE) woven beds for vermiculture – Specification	IS 15907
17	Agro textiles - Nylon knitted seamless gloves for tobacco harvesters - Specification	IS 16390
18	Geosynthetics – Geogrids for flexible pavements – Specification	IS 17371
19	Agro textiles - Woven ground covers for horticulture application - Specification	IS 16202
20	Agro textiles "Shade nets for agriculture and horticulture purposes "Specification Part 2 Shade nets made from mono filament yarns (first revision)	IS 16008 :Part 2
21	Medical Textiles Bedsheet and Pillow Cover Specification	IS 17630
22	Disposable Baby Diaper Specification	IS 17509
23	Sanitary napkins – Specification (second revision)	IS 5405
24	Agro textiles – Windshield nets for agriculture and horticulture purposes - Specification	IS 17356
25	Agro textiles "Shade nets for agriculture and horticulture purposes "Specification Part 1 Shade nets made from tape yarns (first revision)	IS 16008 : Part 1
26	Cotton bales – Specification (third revision)	IS 12171
27	Jute agro-textile – Sapling bags for growth of seedling/ sapling – Specification	IS 16089
28	Jute agrotextiles for growth of plant and suppression of weeds – Specification	IS 17070
29	Textiles - Polypropylene Spun Bonded Non-Woven Crop Covers and Fruit Skirting Bags for Agricultural and Horticultural Applications - Specification (first revision)	IS 16718
30	Agro-Textiles Laminated Woven Orchard Protection Covers Specification	IS 17731

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