

For Details Contact :

Director

sasmira

The Synthetic & Art Silk Mills' Research Association
 Sasmira Marg, Worli, Mumbai - 400030
 Tel.: 24935351/2 Fax : 91-22-24930225
 E-mail : sasmira@vsnl.com or testing@sasmira.org
www.sasmira.org

sasmira



Testing Services



Introduction

The Synthetic and Art Silk Mills' Research Association is a cooperative venture set up by decentralized textiles industry of India as multifunctional institute on 12th January 1950.

sasmira is engaged in multifarious activities with the prime objective of rendering scientific and technical assistance to textiles industry.

sasmira assists industry by offering technically trained manpower, Technical consultancy, Research findings, testing facilities, Reference library and information services. Situated at a strategic location in Worli, it is easily approachable both from suburbs and metropolis.

Sasmira offers following services:

- ▶ Testing and Technical Services
- ▶ Technical textiles and Agro textiles in particular
- ▶ Testing Instrumentation
- ▶ Manpower Training
- ▶ Research and Development
- ▶ Techno Economic Consultancy
- ▶ Information and publications of Technical nature

Quality Policy

- ▶ To offer accurate, reliable and reproducible testing services to the customers.
- ▶ To ensure customer satisfaction.
- ▶ To implement Quality Management System as per ISO/IEC 17025:2005(E) and the criteria of accreditation body.

Objectives

- ▶ Ensuring adequate competency level of the staff.
- ▶ Using latest national and international or validated in-house test methods.
- ▶ Using modern equipment/ calibrated instruments to offer quality-testing services.
- ▶ Ensuring adequate corrective action on complaints.
- ▶ Ensuring effectiveness of quality system implemented.
- ▶ Ensuring updating of the Quality System.
- ▶ To participate in inter-laboratory / proficiency testing

The laboratory shall maintain an effective quality assurance system with total commitment of the management and involving all the members of the staff.



Testing and Technical Services

sasmira undertakes testing of physical and chemical properties of all textiles, including technical textiles and allied materials under standard conditions. Testing laboratories are NABL accredited as per ISO 17025: 2005.

sasmira, being identified as Centre of Excellence for Agrotextile, is equipped to undertake speciality property testing of the technical fabrics.

sasmira laboratories undertake Technical Services for:

- ▶ Fabric defect analysis and prevention.
- ▶ Fabric structure and design analysis.
- ▶ Product standardization.
- ▶ Computer aided textiles design.
- ▶ Analysis of technical pertaining to manufacturing, processing & finishing.
- ▶ Suggestion to improve quality on the above.
- ▶ Suggestions to improve productivity.
- ▶ Fabric strength & design analysis.

Similar services are also available at **sasmira's** Powerloom Service Centres at Bhiwandi.



Testing and Technical Services

One of the Prime activities of SASMIRA since inception. Since 2004, NABL Accredited for Mechanical and Chemical Testing of Textile and Allied substrates.

Equipped with state-of-the-art testing equipment. The tests are performed by a team of skilled and experienced staff who undergo continual training and upgradation of their skills, thus ensuring the highest level of consistent, reliable and accurate analysis to promptly serve the needs of the industry in the best possible manner.

Samples are received from exporters and importers, manufacturers of fibre to fabric (wovens, non-wovens, knitted and technical textiles) dyestuffs, textile auxiliaries, Government Institutions and Defence Establishment, Public and Private Sector Clients.

Besides routine testing, Technical Services and Consultancy is also a forte including Defect analysis, on-site quality check, product certification, troubleshooting, etc.





Mechanical Testing

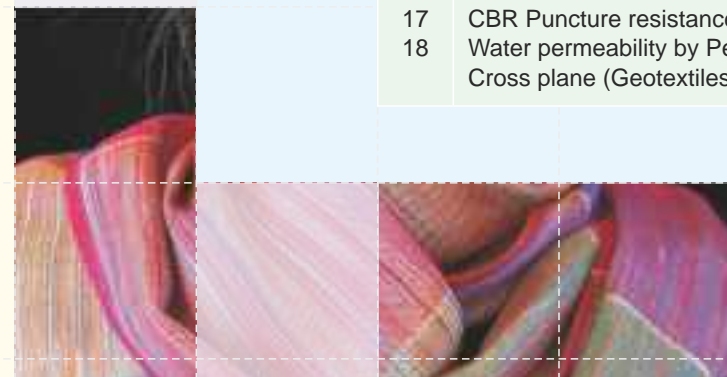
sasmira has a full fledged state-of-the-art laboratory for the testing of physical properties of textiles (fibre/yarn/fabric) and, also has a special set up for the testing of technical textiles in general, and agro textiles in particular.

The mechanical testing section caters to full range of testing from basic parameters such as count, construction, to the more specialized testing such as water vapour permeability, UV exposure, wide width tensile strength testing, etc. The range of samples encompasses from apparels to upholstery; nonwovens; geotextiles and also automotive textiles.

Few key testing instruments: Universal Testing Machine, Air Permeability Tester, Bursting Tester, Thermal Conductivity tester, Yarn-to-yarn and yarn-to-metal Friction Tester, Vibroskop, Yarn evenness tester, besides the routine testing equipments like Wrap reel, Crease recovery tester, Twist tester, etc.

Testing as per Standard test methods (IS/ASTM/AATCC/ISO-DIN/SAE) or customized testing. Tailor-made testing is also possible as per customer's requirement. Results are delivered promptly and accurately.

With the blend of all these qualities, the testing services stand apart, as we strive to achieve the highest level of excellence in the field of testing.



Geotextiles and Technical Textiles

S.No.	Test Parameter	Std Test Method	Charges (Rs.)
1	Tensile Strength- SHIMADZU		400.00
	AG10 TG m/c	IS 1969	400.00
	▶ Cord	ASTM D 5034/5035	400.00
	▶ Webbing	IS 2965	400.00
	▶ Braided nylon	IS 4227	400.00
	▶ Rope		400.00
	▶ Coated fabric		400.00
2	Grab test (Geotextiles)	ASTM D 4632	400.00
3	Wide width Breaking strength Woven / Nonwoven	ASTM D 4595	1000.00
4	Trapezoid Tearing strength of (Geotextiles)	ASTM D 4533	500.00
5	Abrasion Resistance Martindale Tester	ASTM D4966	
	▶ Upto 10,000 Rubs		400.00
	▶ Upto 15000 Rubs		600.00
	▶ Upto 20,000 Rubs		800.00
	Extra amt for every additional 10,000rubs		300.00
6	Taber abrasion Test	ASTM D 3884	750.00
7	Apparent Opening Size (AOS) of Geotextiles.	ASTM D 4751	500.00
8	Air Permeability (upto 10")	ASTM D 737	350.00
9	Flexing Abrasion (Schildknecht)	IS 7016 part 4	500.00
10	Index Puncture Resistance	ASTM D4833	500.00
11	Adhesion of Coating	IS 7016 part 5	500.00
12	Resistance to flame	IS 1259	300.00
13	Resistance to heat and loss of mass of coating	IS 1259	400.00
14	Exposure to UV		
	▶ For 500 hours	ASTM G 154	20,000.00
	▶ Every additional 100 hours or part thereof		5000.00
15	Exposure to Xenon arc For 500 hrs	ASTM D 4355	20,000.00
	Every additional 100 hours or part thereof		5000.00
	Cone drop (Geotextiles)	IS 13162 Part 4 BSEN 918	350.00
17	CBR Puncture resistance	ASTM D 4833	500.00
18	Water permeability by Permittivity- Cross plane (Geotextiles)	ASTM D 4491	500.00



S.No.	Test Parameter	Std Test Method	Charges (Rs.)
38	Water testing		
	▶ pH		200.00
	▶ Total solids		200.00
	▶ Chlorides		200.00
	▶ Sulphates		200.00
	▶ Hardness (calcium and magnesium)		200.00
	▶ Total Hardness		200.00
	▶ Acidity or alkalinity		200.00
	▶ Iron content		200.00
	▶ Cu content		200.00
▶ Mn content		200.00	
39	COD	IS 3025 part 58	600.00
	BOD	IS 3025 Part 44	800.00

- ▶ Recommended (Minimum) size of sample: 1 mtr. X Full width or more depending on the number of test parameters.
- ▶ In case of Garment and Made-ups:-1 full unit.
- ▶ Dyes / Pigment in sealed condition: 10 gms
- ▶ Urgent services are available for some tests at EXTRA Charge.
- ▶ Extra charge of Rs 100/- for individual reading/ computer printout.
- ▶ Service and cess tax extra as applicable.

Non - Woven Testing

S.No.	Test Parameter	Std Test Method	Charges (Rs.)
1	Absorbency	Drop method	200.00
2	Weight per square metre	IS 1964	100.00
3	Wettability		200.00
4	Breaking strength	IS 1969 / ASTM D 5035	500.00
5	Water permeability	ASTM D 4491	500.00
6	Identification of material	IS 667	200.00
7	Liquid strike rate	In House Method	400.00

- ▶ Recommended (Minimum) size of sample : 2.5 sq meters
- ▶ Urgent services are available for some tests at EXTRA Charge.
- ▶ Extra charge of Rs 100/- for individual reading/ computer printout.
- ▶ Service and cess tax extra as applicable.



Chemical Testing and Analytical Services

Chemical testing includes identification, blend analysis, entire range of colour fastness of dyed fabrics, shrinkage, amongst others. Apparels, upholstery; nonwovens; geotextiles and also automotive textiles are routinely tested.

The laboratory has all equipments for Colour Fastness tests - Light Fastness Tester cum weatherometer fastness, Launderometer, Crockmeter, Sublimation fastness tester, Perspirometers. Besides these, the lab is also well equipped with Computer Colour Measurement spectrophotometer, Fully automatic washing machine, Padding mangles, curing chamber, thermostatic ovens, environmental and humidity chamber, Infra-red and glycerin bath High temperature-pressure dyeing equipments specially for the dyeing of polyester and synthetics. Analytical testing is supported by FTIR Spectrophotometer and Differential Scanning and Thermal analyser.

Testing as per Standard test methods (IS/ASTM/AATCC/ISO-DIN/SAE). As per request, the lab also undertakes customised testing. Special emphasis is given towards accurate, reliable and timely results.



Physical Parameters Testing Services Man-Made Fibers and Polymers

S.No.	Test Parameter	Std Test Method	Charges (Rs.)
1	Moisture content	IS 199	200.00
2	Mean Fiber length	IS 10014 (PT 1) ASTM D 5103,	300.00
3	Linear density (Denier)	ASTM D 1577	250.00
4	Fiber strength	ASTM D 3379, 3822	500.00
5	Fiber diameter	Microscopic method	300.00
6	% Hollowness	Microscopic method	400.00
7	Crimps per cm	ASTM D 3937	200.00
8	Intrinsic Viscosity (IV)	By Ubbelohde Viscometer	1200.00
9	Melting Point	Hot plate method	200.00
10	% Spin finish	IS 9068	400.00
11	Oligomer content	In-house method	800.00
12	Hot air shrinkage	ASTM D 2102	350.00
13	Boiling water shrinkage	ASTM D 2102	350.00

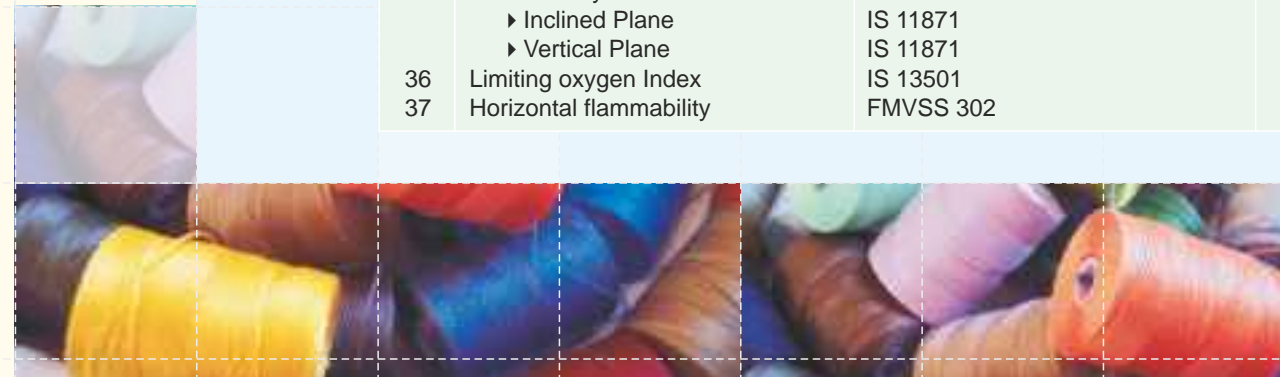
- ▶ Recommended (Minimum) size of sample : 250 gms.
- ▶ Urgent services are available for some tests at EXTRA Charge.
- ▶ Service and cess tax extra as applicable.

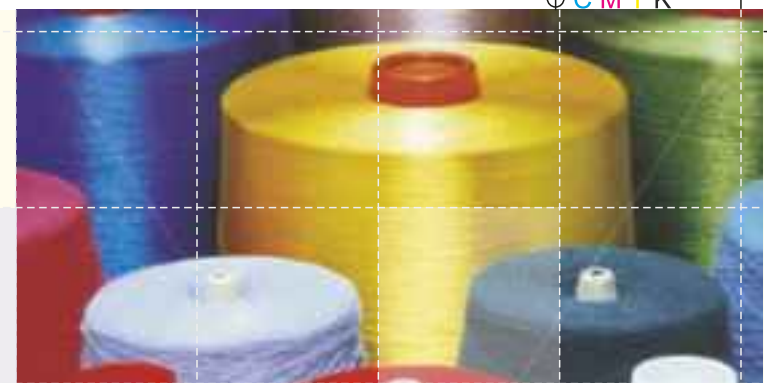
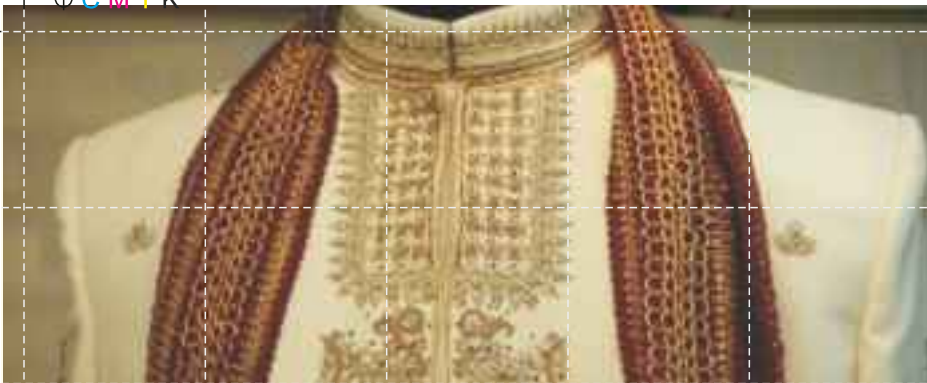
Physical Parameters Fibre : Wool

S.No.	Test Parameter	Std Test Method	Charges (Rs.)
1	Moisture content	IS 6637	200.00
2	Fibre length	ASTM - D 1576	300.00
3	Fibre strength	IS 1377	500.00
4	Fibre Diameter	IS 235	300.00
5	Wool Grade of fibre and Top	IS 744	500.00
6	Linear Density	IS 5910, 5911, ASTM D 3991, 3992	300.00
7	Mean length of staple fibers (from yarns)	ASTM D 1577	550.00
		In-house method	

- ▶ Recommended (Minimum) size of sample : 250 gms.
- ▶ Urgent services are available for some tests at EXTRA Charge.
- ▶ Service and cess tax extra as applicable.

S.No.	Test Parameter	Std Test Method	Charges (Rs.)
15	Color fastness to Dry Cleaning:	IS 4802, AATCC132	300.00
16	Color fastness to organic solvent	IS 688: ISO 105-X05	300.00
17	Color fastness to saliva and perspiration	IS 15626	300.00
18	Color fastness to Bleaching:	IS 762, IS 763	300.00
19	Color fastness to laundering (Home or commercial)	AATCC-61 / ISO 105 C06	400.00
20	pH of aqueous Extract	IS 1390	200.00
21	Residual starch on bleached fabric	IS 1967	300.00
22	Removal of non fibrous matter:	IS 9068	300.00
23	Oil, fats and waxes		300.00
24	Water soluble matter (Cold /Hot)	IS 3456	300.00
25	Estimation of		
	▶ Ash	IS 199	300.00
	▶ Finish		300.00
	▶ Fatty matter		300.00
	▶ Starch		300.00
	▶ Alkali content		300.00
	▶ Total Size		300.00
	In grey and finished cotton fabric		
26	Scouring loss	IS 1383	300.00
	In grey and finished cotton fabric		
27	Chloride content	IS 4202	300.00
28	Sulphate content	IS 4203	400.00
29	Viscosity (Gums and liquids)	Brookfield method	350.00
30	Identification of dyes	IS 4472 (Part -I /II /III)	300.00/dye
31	Wettability	IS 2349	200.00
32	Dimensional changes of woven and knitted fabric		
	▶ Relaxation	IS 2977, IS 665	250.00
	▶ To washing	AATCC 135, IS 1299	300.00
	▶ Every additional wash		100.00
	▶ On heating	IS 12170	350.00
32	Bundesmann Water test absorption / penetration	IS 392	300.00
33	Cone Test	IS 7941	250.00
34	Spray Test	IS 390	250.00
35	Flammability Tests:		
	▶ Inclined Plane	IS 11871	300.00
	▶ Vertical Plane	IS 11871	300.00
36	Limiting oxygen Index	IS 13501	1200.00
37	Horizontal flammability	FMVSS 302	750.00





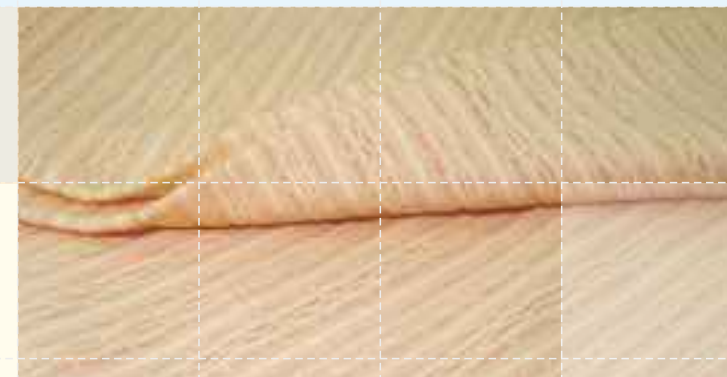
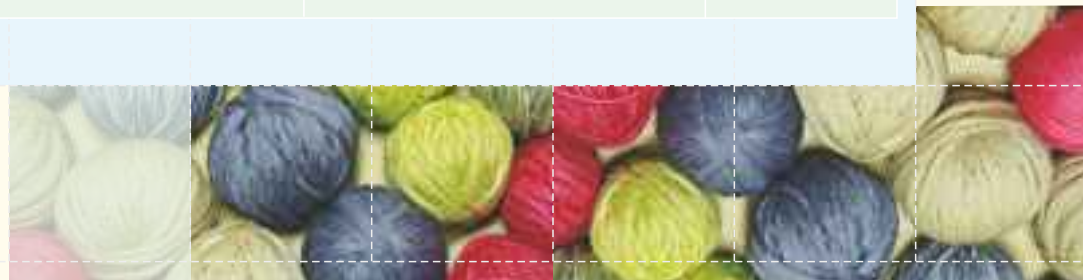
Chemical Parameters: Fibres/ Yarn /Fabric

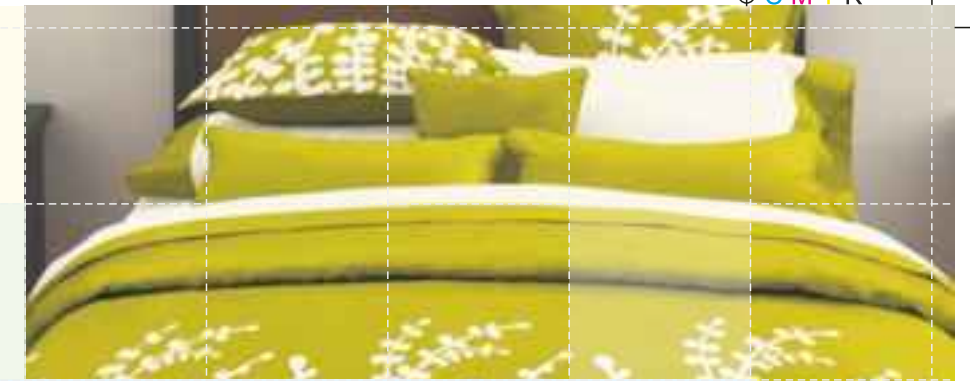
S.No.	Test Parameter	Std Test Method	Charges (Rs.)
1	Identification of fiber	IS 667	150.00
2	%Blend Composition	IS /ISO/AATCC	
	Two components		300.00
	Each additional component		150.00
3	COLOR SYSTEM	(Spectrophotometer)	
	▶ Color difference		500.00
	▶ Comparison of strength of Fabrics		500.00
	▶ Comparison of strength of Dye stuff		500.00
	▶ Reflectance Curve		500.00
	▶ Whiteness Index / Yellowness evaluation		500.00
4	Color fastness to washing		
	▶ at 40°C (Test-I)	ISO 105 C01	250.00
	▶ at 50°C (Test-II)	IS 3361, ISO 105 C02	250.00
	▶ at 60°C (Test-III)	IS 764, ISO 105 C03	250.00
	▶ at 90°C (Test-IV)	IS 765, ISO 105 C04	300.00
	▶ at 95°C (Test-V)	IS 3417, ISO 105 C05	400.00
	Extra charges of Rs 50.0 for extra washing of 30-minute duration.		
	Washing with Multifibre fabric	ISO 105 (C01 to C02)	Extra Rs.100
5	Color fastness to light (Xenon lamp)	IS/ISO method	
	Upto Blue wool 5 standard		700.00
	Blue wool 6 standard		1400.00
	Blue wool 7 standard		2800.00
6	Color fastness to Xenon exposure	AATCC method	
	20 AFU		700.00
	40 AFU		1400.00
	80 AFU		2800.00
	100 AFU		3500.00
7	Color fastness to Hot pressing-dry/wet /damp:	IS 689 AATCC 133	200.00
8	Color fastness to Rubbing/Crocking	IS 766, AATCC 8 ISO 105- X12	150.00
9	Color fastness to Organic solvent:	IS- 688	300.00
10	Color fastness to shampooing	IS 11969	300.00
11	Color fastness to sea water	IS 690, ISO 105 EO2, AATCC 106	250.00
12	Color fastness to chlorinated pool water	IS 4803	300.00
13	Color fastness to Perspiration (Alkaline/acidic):	IS-971, AATCC 15 ISO-E04	300.00
14	Color fastness to Water:	IS 767, AATCC 107, ISO105:E01:94	200.00

Physical Parameters Yarns

S.No.	Test Parameter	Std Test Method	Charges (Rs.)
1	Moisture content	IS199	200.00
2	Lea Count with CV%	IS 1315	200.00
		ASTM D 1907	
3	Lea Strength	IS 1671	200.00
4	CSP (Count Strength Product)	IS 1671, IS 1315	350.00
5	Single yarn Strength	IS 1670,	325.00
	With elongation / Tenacity/ RKM	IS 7703 (Part II)	
		ASTM D 2256	
6	Unevenness (U %)		300.00
	Yarn		
	Roving/ Sliver	ASTM D 1425,	
	Extra charges for Imperfection	IS 7703-PartV (Filament yarn)	
	Spectrograph		250.00
	Individual values		50.00
7	Linear density of yarn	IS 7703 (part I)	200.00
8	Twist per meter or inch	IS 832	200.00
	Including the direction of the twist		
	Single of plied / cable yarn	ASTM D 1422	
	Single yarn spun (twist /unit length)		
9	Balance of Twist	ASTM D 204	200.00
10	Yarn appearance	ASTM D 2255 IS 13260	200.00
11	Textured or Non-Textured yarn	In-house method	400.00
12	Coefficient of Friction By Dynafil		
	Yarn to Yarn	ASTM D 3412	700.00
	Yarn to Metal	ASTM D 3108	700.00
13	Hot-air shrinkage	ASTM D 2259	350.00
14	Boiling water shrinkage	ASTM D 2259	350.00
15	No. of filaments (Multifilament yarn)	Visual	300.00

- ▶ Recommended (Minimum) size of sample: 30 mini cones containing each of 1/2 hank or 15 cones containing double hank.
- ▶ Urgent services are available for some tests at EXTRA Charge.
- ▶ Service and cess tax extra as applicable.

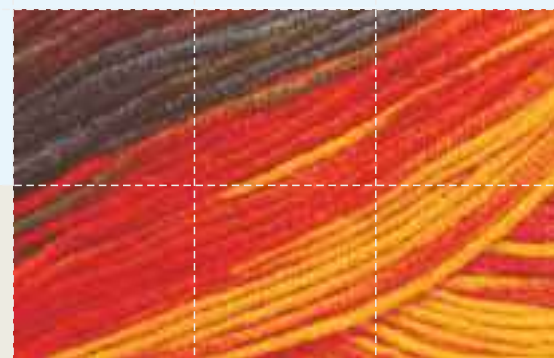




Physical Parameters

Fabric : Woven and Knitted

S.No.	Test Parameter	Std Test Method	Charges (Rs.)
1	Moisture Content	IS 199	200.00
2	Type of weave / knitting	Visual Testing	200.00
3	Width and Length	IS 1954, ASTM D 3773 ASTM D 3774	100.00 (each)
4	Skew ness /Bowing of Fabric/Garment	ASTM D 3882 AATCC 179	200.00
5	Thickness of fabric/ carpet	IS 7702, ASTM D 1777	125.00
6	Threads per unit length (Reed and pick)	IS 1963 ASTM D 3775	125.00
7	Weight / sq meter & Weight / linear meter	IS 1964	100.00
8	Count of Warp and Weft yarn a) As received b) After removal of added matter	IS 3442 , IS 7703 IS 9068	150.00 350.00
9	Cover factor	Estimated	300.00
10	% Crimp	IS 3442	100.00
11	Twist of the yarn removed from fabric	IS 832	200.00
12	Tensile strength of fabric and elongation (Ravelled /cut / grab strips) Cord Braided Nylon Cord %Elongation at break at specified load (extra)	IS 1969 ASTM D 5034/5035 IS 2965 IS 4227 ISO 13934-1/2	350.00
13	Tear strength-Elmendorf	ASTM D 1424	300.00
14	Tear strength-single rip	ASTM D 2261	350.00
15	Tear strength- Double tongue	IS 7016	350.00
16	Tear strength- Trapezoid	ASTM D 5587	350.00



S.No.	Test Parameter	Std Test Method	Charges (Rs.)
17	Seam Slippage	ASTM D 1683	500.00
	Seam strength	ISO 13936-1, ISO 13935-2	500.00
18	Peel bonding strength of coated fabric	IS 1259	500.00
19	Water Vapor permeability	ASTM E-96	700.00
20	Air permeability at 1.22" WHP (Densometer)	Federal standard	200.00
21	Air permeability at low pressure	IS 11056 ASTM D 737	200.00
22	Bursting Strength	IS 1966 (Diaphragm Method) ASTM D 3786	250.00
23	Pilling Resistance	ASTM D 4970 IS 10971	300.00
24	Crease Recovery Dry /Wet	IS 4681 AATCC 66	200.00 (Each)
25	Stiffness Test	IS 6490 ASTM D 1388	200.00
26	Drape Coefficient	SDL method	350.00
27	Abrasion Resistance Abrasion -- Martindale Tester Upto 10,000 Rubs Upto 15000 Rubs Upto 20,000 Rubs Extra amt for every additional 10,000 rubs	----do---- ----do---- ----do----	400.00 600.00 800.00 300.00
28	Flexing Abrasion Schildknecht	IS 7016 part 4	500.00
29	Taber abrasion test	ASTM D 3884	750.00
30	Thermal Conductivity	Sasmira tester	400.00
31	Fabric Defect Analysis		4000.00

- ▶ Recommended (Minimum) size of sample: 1 mtr. X Full width or more depending on the number of test parameters.
- ▶ In case of Garment and Made-ups :1 full unit.
- ▶ Urgent services are available for some tests at EXTRA Charge.
- ▶ Service and cess tax extra as applicable.