

ICAR-Central Institute for Research on Cotton Technology

Adenwala Road, Matunga, Mumbai – 400019 (MS)

Commercial Testing Services updated on August-2026

Item Sr. No	Test	Test Fee per sample (Rs)	Minimum Sample Size	Remarks
1	TESTS ON FIBRE			
1	Ginning percentage by Laboratory Model Gin	350	1 kg	seed cotton
2	Ginning percentage by Commercial Gin	500	20 kg	seed cotton
3	Percentage of Moisture (IS 199)	400	250 g	airtight packing
4	Percentage of Waste in Lint			For bulk testing of HVI and trash % discount will be offered
	a) Trash Content % (IS 4871)	600	300 g	
	b) Trash Content % (CIRCOT SP-4)	400	150 g	
	5	HVI Test (HVI / ICC Mode) & Colour Grade(ASTM D 5867)	250	
	Span Length (IS 233(Part 4))	200	250 g	
	Strength of Fibres (IS 3675)			
	Micronaire Value (IS 3674)			
6	Baer Sorter with diagram (BS4044)	1000	300 g	
7	Fibre Fineness by Micronaire (BS 3181)	100	100 g	
8	Single Fibre Strength and elongation by	3000	300 g	100 readings
	INSTRON (ASTM D3822)			
9	Fibre Maturity by NaOH method (IS 236)	450	100 g	
10	AFIS Test Length, Maturity & Neps (ASTM D 5866)	500	100 g	At GTC Nagpur & QEU Coimbatore
	Length Module	200	100 g	"
	Maturity Module	200	100 g	"
	Neps Module	200	100 g	"
	Trash Module	150	100 g	At QEU Coimbatore
11	Qualitative Identification of Fibres (IS 667)	350	100 g	
12	HVI & Microspinning (CIRCOT Method)	4000	500 g	
13	Full Spinning on carded cotton (1 count)	6000	5.5 kg	
	Full Spinning on carded cotton (2 counts)	8000	8 kg	
	Additional Count	3000	10 kg	
2	TESTS ON YARN			
14	Yarn count (IS 1315)	450	1 km	
15	Lea Test (IS 1671)	550	1 km	
16	Single Thread Strength and elongation by Instron (IS1670)	1500	1 km	
17	Single Thread Strength by automatic single yarn tester (IS 1670)	1000	1 km	
18	Twist in Single Yarn (IS 832 Part 2 / ISO 17202)	450	500 m	
19	Twist in Double Yarn (Doubling Twist)	450	500 m	
20	Twist in Cords and Cables	400	500 m	
21	Yarn Evenness U% with Imperfections by	1500	6 Packages	
	Uster UT-4 (ASTM D 1425)			
22	Yarn Hairiness by Zweigle Hairiness Tester	1000	20 km	
	(hairs of 1,2,3,4,6,8,10,12, 15, 18,21,and 25 mm ;			
	Cumulatative & Differential mode)			
23	Qualitative Identification of Fibres in Yarns (IS 667)	350	100 g	
	Quantitative analysis of Fibres in Yarns	700		

	(IS 3416) Upto two components			
24	Each component over two	300		
3	Tests on Woven / Knitted Fabric			
25	Type of Weave (CIRCOT Method)Single layer fabric	400	2 m / full piece	
26	Type of Weave (CIRCOT Method) Double layer fabric	600		
27	Type of Knit(CIRCOT Method) Single layer fabric	400		
28	Type of Knit(CIRCOT Method) Double layer fabric	600		
29	Length of Fabric (IS 1954)	250		
30	Width of Fabric (IS 1954)	250		
31	Thickness of Fabric (IS 7702 / ISO 5084)	250		
32	Weight per square or linear metre of Fabric (IS 1964/ ASTM-D 3776)	450		
33	Ends & Picks / wales & Courses (IS 1963)	350		
34	Count of Warp,Weft Yarn & Ply (IS 3442)	500		
35	Fabric Tensile Strength and Elongation (IS 1969 /ISO 13934)	1000		
36	Water Permeability (Cone Test)	300		
37	Dimensional change on soaking in water (IS 2977)	450		
38	Pilling Test (IS 10971 part 1/ISO 12945-1)	500		
39	Tearing Strength (IS 6489 part 1/ ISO13937-1)	1000		
40	Crease Recovery (IS 4681)	550		
41	Bursting Strength (IS 1966 part 2)	350		
42	Drape Test (IS 8357)	500		
43	Fabric Handle by KES-FB System		1 m / full piece	
	a) Full Test (Tensile, Shear,Bending, Compression and Surface properties)			
	Woven Fabrics	7000		
	Knitted Fabrics	8000	50cm	
	b) Individual Module Testing			
	Woven Fabrics	2000		
	Knitted Fabrics	3000	1 m / full piece	
44	Thermal transport properties of fabric using Thermolabo II (KES-FB7)			
	a) q-max (Warm/ Cool feeling)	2500		
	b) Thermal Conductivity by constant heat flow method	2500	1 m / full piece	
	c) Thermal Insulation by guarded hot plate method	2500		
45	Resistance to air flow through fabric using	800	1 m / full piece	
	KES-FB-AP1 Tester			
46	Water Vapour Transport Rate through fabric		1 m / full piece	
	By Dish Method WVTR	2000		
47	Vertical Wicking Test for fabric	1000	1 m / full piece	
48	Absorbency Test for fabric		1 m / full piece	
	a) Sinking Time (IS 2369)	500		
	b) Drop Test for absorbency of textiles (IS 2349)	500		
49	Water Repellency - Spray Tester (IS 390)	350	1 m / full piece	
4	Test for Mask			
50	Synthetic Blood penetration resistance Test	1500	5 mask/0.5m fabric	
51	Particle Filtration Efficiency Test	1500	5 mask/0.5m fabric	
52	Air resistance (KES-FB-AP1 Tester)	800	5 mask/0.5m fabric	
53	Micro pore size analyser as per ASTM F316, ASTM D6767 liquid displacement technique	2500	5 mask/0.5m fabric	
54	Medical Mask / fabric differential pressure breathability Tester ASTM F2100	1500	5 mask/0.5m fabric	
55	Respirator Breathing Resistance Tester as per EN149	1500	5 mask/0.5m fabric	
56	Contact angle (by Goniometer)	2000	5 mask/0.5m fabric	

5	Chemical & Physico - Chemical Tests			
57	Honey Dew : Qualitative Test (Fibre)	400	50 g	
	(ICGR 11-126)			
58	Honey Dew :Quantitative Test (Fibre)	800	50 g	
	(CIRCOT Method)			
59	Desizing or Definishing (IS 199)	500	50 g	
60	Percentage of Size/Finish (IS 199)	750	50 g	
61	Scouring Loss % (IS 1383)	600	50 g	
62	Fluidity test (IS 244)	2000	50 g	
63	Alkali Solubility Number	400	100 g	
64	Ash Content (IS 199)	650	100 g	
65	Water soluble matter (IS 3456)	500	100 g	
66	pH Determination (IS 1390)	400	50 g	
67	Oil Content of Fibre, Yarn and Fabric	850	100 g	
68	Fluorescence Test for Optical Whiteners	250	100 g	
69	Acidity / alkalinity	400	50 g	
70	Wax content	850	100 g	
71	Qualitative Identification of Fibres in fabric (IS 667)	350	0.5 m	
72	Quantitative Blend analysis of Fabric (IS 3416)	700	50 g	
	Upto 2 components			
	additional component over two	300		
73	Quantitative Blend Analysis of Fabric-Warp & Weft separately	1400	0.5 m	
74	Nature of Dye (Vat or Reactive) (IS 4472 part -I)	900	100 g	
75	Colour Fastness to washing (IS/ISO 105 C 10)		0.5 m	
	Test 1-3	450		
	Test - 4	650		
	Test - 5	1300		
76	Colour Fastness to Dry Cleaning AATCC:132-	1100	0.5 m	
	1988 & IS/ISO:105-DO1			
77	Colour Fastness to Light (IS/ISO 105 B02 / AATCC 16.3			
	upto BWS (4) / 20 AFU			BWS-(Blue Wool Standard)
	1 sample / 2 samples each / 3 or more samples each	3500/1800/1100	0.5 m	
	upto BWS (5)			
	1 sample / 2 samples each / 3 or more samples each	4800/2500/1800	0.5 m	
	upto BWS (6)			
	1 sample / 2 samples each / 3 or more samples each	8000/4500/2800	0.5 m	
78	Colour Fastness to Perspiration (IS/ISO 105 E 04)	650	0.5 m	
79	Colour Fastness to Rubbing (IS/ISO 105 X 12)	450	0.5 m	
80	Colour Fastness to Bleaching (IS/ISO 105 N 02)	550	0.5 m	
81	Colour Fastness to hot pressing (IS/ISO 105 X11)	800	0.5 m	
82	Colour Fastness to dry heat (IS/ISO 105 P 01)	650	0.5 m	
83	CF to Water (IS /ISO 105 E01)	400	0.5 m	
84	CF to Acid & Alkalis (AATCC TM 6)	1500	0.5 m	
85	Ultra-Violet Protection Factor (UPF) (AATCC - 183)	900	0.5 m	
86	Proofing content (IS 6803)	1200	100 g	
87	Limiting Oxygen Index (IS 13501 / ASTM D 2863)	1700	0.5 m	
88	K/S value/Colour parameters (L*,a*,b*,C,H)/ whiteness index by Xrite	600	0.5 m	
89	Solvent Extractable matter	850	50 g	
90	Oil Repellency (AATCC TM 118)	1500	0.5 m	

91	Soil release efficiency	750	0.5 m	
92	Barium activity number (IS 1689)	1200	0.5 m	
93	Alcohol Water Repellency (AATCC TM 193)	1100	0.5 m	
94	Chlorite test IND/TC/2562(D)	700	0.5 m	
95	Hydro Test IND/TC/2562(C)	700	0.5 m	
96	Levelling Test IND/TC/2562(B)	1000	0.5 m	
6	Microbiological Tests			
97	Anti Fungal Activity			
	AATCC 30 - Test II	1700	1 m	
	AATCC 30 - Test III	1700	1 m	
98	Antibacterial activity			
	ASTM E-2149 per culture	2000	10 g	
	AATCC 147 (Qualitative)	1100	0.5 m	
	AATCC 100 (Quantitative)	2400	0.5 m	
99	Total Bacterial and Fungal Count	900	50g /500 ml	
100	Agar diffusion Test	600	10 g	
	For antibacterial & Anti fungal activity per culture			
101	Lyophilization			
	Lyophilization Upto 250 ml of Liquid	2800		only aqueous samples are accepted
	Every additional 250 ml			
	Total Solid Content of Liquid Upto 10%	2300		
	Total Solid Content of Liquid 11% to 20 %	1700		
	Total Solid Content of Liquid 21% and above	1100		
	if solid content found less than stated , charges payable on observed solid content.			
7	Tests on CottonSeed			
102	Oil content	850	250 g	
103	Hull and Kernel Percentage modified AOCS	700		
104	Protein content	850		Acid Delinting Rs 500 extra
105	Free Gossypol Content	1400		
106	Total Gossypol Content	1400		
107	Crude Fibre content	1600		
107	Linter %	600		
8	Tests on Cotton Linters and fibre material			
109	Alpha-Cellulose Content (with purification)/Hemi cellulose	2200	250 g	
110	Purification of Linters	1500		
	(Cleaning, Kiering & Bleaching)			
111	Cellulose yield	1400		
112	Ash content (IS 199)	650		
113	Acid Insoluble Ash	800		
114	Ether Soluble Matter	850		
115	Iron content in Ash	1100		
116	Lignin Content %	3300		
117	Fluidity	2000		
118	Viscosity /Degree of polymerisation - Raw linters	3000		
119	Viscosity /Degree of polymerisation- Bleached	2200		
9	Test on Absorbent Cotton (Indian Pharmacopoeia)			
120	Description	200	250g	
121	Identification	400		
122	Acidity / Akalinity	400		

123	Absorbency	450		
124	Foreign Fibres	200		
125	Fluorescence	250		
126	Colouring Matter	300		
127	Ether Soluble Matter	850		
128	Water Soluble Matter	650		
129	Water Holding Capacity	450		
130	Neps	500		
131	Sulphated Ash	850		
132	Loss on Drying	500		
133	Surface Active Substances	500		
134	Complete testing as per IP	5000	250g	
10	Pulp Testing			
135	Fibre Length (Tappi - T233)	1000	250 g	
136	Freeness CSF (Tappi - T227)	1000		
137	Freeness Degree SR (Tappi - T227)	1000		
138	Consistency (Tappi - T240)	500		
139	Kappa Number (Tappi - T 236)	2200		
11	Paper Testing (IS-1060)			
140	GSM	300	12 paper full size	
141	Thickness	300		
142	Bulk	300		
143	Size Measurement	200		
144	Brightness %	500		
145	Opacity %	500		
146	Smoothness	500		
147	Porosity	500		
148	Cobb %	400		
149	Bursting Strength	500		
150	Tearing Strength	500		
151	Tensile Strength	600		
152	Breaking Length	600		
153	Gloss %	500		
154	Stiffness	500		
155	Water Absorbency	400		
156	Double fold	500		
157	Feathering	400		
158	pH	400		
159	Ash	650		
12	Board Testing (IS 3087)			
160	Density	500		
161	Moisture %	500		
162	Water Absorption	600		
163	Swelling in Water	600		
164	Modulus of Rupture	2000		
165	Adhesion Test /Internal bond strength	2000		
166	Screw/Nail withdrawal	2000		
167	Tensile Strength	1000		
13	Water Analysis (IS 3025)			
168	COD Analysis	800	500 ml	
169	BOD Analysis	1200	500 ml	

170	Conductivity	300	500 ml	
171	TDS	300	500 ml	
172	pH	350	500 ml	
173	Salinity	300	500 ml	
174	Analysis of Heavy Metals by AAS per metal	450		
14	Tests on Activated Carbon			
175	BET Surface area analysis	4000 for one sample	5 g	
		3000 each for more than one sample		
176	Methylene Blue number of activated carbon [IS 877]	400	5 g	
177	Iodine Number of activated carbon [ASTM D4607-94]	1500	5 g	
15	Special Tests			
178	ICP-MS			
	Aqueous sample not requiring any preparation	2000 (up to 23 elements)*	25ml	* Ag, Al, B, Ba, Bi, Ca, Cd, Co, Cu, Cr, Fe, Ga, In, K, Li, Mg, Mn, Na, Ni, Pb, Sr, Tl, Zn 400 per extra element Mo, Ti, Hg, Se, Sb, I, As, Pt)
	Sample requiring microwave digestion	3500 (up to 23 elements)*	1 g	
179	Raman spectroscopy for solid and liquid samples using 1065 nm laser	1500	5 gm/ml	
180	TGA scan from 30°C to 950 °C @ heating rate of 20°C /min	4000	1 g	
181	TOC Analysis for liquid samples (T C/ NPOC Method)			
	ppm level	1000	100 ml	
	ppb level	1200	100 ml	
182	TOC Analysis for Solid Sample (TC and IC method)ppm level	1200	5 g	
183	Total Nitrogen Analysis for Liquid samples using TOC Analyser	1500	100 ml	
184	COD analysis using thermal reactor	800	100 ml	
185	FTIR KBr /Diamond ATR	1800		
186	UV absorbance/transmission scan	400	100 ml/ 5g	
187	Analysis of Sodium/ Potassium content of water by Flame Photometer (per element)	300	500 ml	Rs. 500/- extra for digestion if required
188	Elemental Analysis by AAS (per element)	450	100 ml/ 5g	Rs 500 extra for digestion
189	Scanning Electron Microscope			
	Surface morphology	2500	1 g	Maximum 4 micrographs
	Cross section	3000		
190	AFM Imaging	5000		
191	Light micrograph / Photomicrograph	1000		
	(10x, 40x and 100x magnifications)			Rs 500 extra for Sample Preparation/ Staining

192	Particle Size Characterization			
	a) Nano Particle Size Analysis by DLS (0.6 nm to 6 micron)	2000	10 ml for aqueous suspension	Sample in stable suspension only
	b) Particle Size Analysis by Micron size analyser -LASER Diffraction method (20 nm to 2000 microns)	1500	10g for powder	powder sample should be free flowing and free from aggregates.
	c) Particle Size Analysis by Micron size analyser -LASER Diffraction method (20 nm to 2000 microns) and dynamic image analysis	2000	10 ml for aqueous suspension	suspension sample should be in aqueous and free from aggregates. Refractive index of the particles need to be provided
193	Electrical Resistance of Textile Materials, Thin films etc. by Electrometer (6517A)	2000	0.5 m	
194	Surface Tension by pendant drop method using goniometer	2000		
195	Contact angle by goniometer	2000		
196	Surface energy of the material			
	a) one Liquid method	2000		
	b) two Liquid method	3000		
197	Friction coefficient (Yarn/fibre/ fabric to Yarn/fibre/fabric , Yarn/fibre/ fabric to metal)	2000	1 m	
198	Weathering/xenon arc exposure Test as per ASTM/ISO /SEA J Method			
199	Nano Urea Analysis Charges			
a	Total Nitrogen (as N), per cent by weight	1500		
b	pH	350		
c	Viscosity in cP	750		
d	Particle size in nano meter (nm) in one dimension Hydrodynamic particle size (DLS Analysis)			
e	Surface Charge / Zeta Potential in mV			
200	Nano DAP Analysis Charges			
a	Total Nitrogen (as N), per cent by weight	1500		
b	Total phosphorus (as P2O5), per cent by weight	1500		
c	pH	350		
d	Viscosity in cP	750		
e	Specific gravity	500		
f	Particle size in nano meter (nm) in one dimension Hydrodynamic particle size (DLS Analysis)	3000		
g	Surface Charge / Zeta Potential in mV			
201	UHPLC based analysis (water Arc HPLC)			
a	Gossypol - C18 column with PDA detector	3000 (Analysis with standard only; separate charges for sample		

		preparation: ₹2000)		
b	Phenolic compounds (Ferulic acid, gallic acid, vanillic acid, and others) -C18 column with PDA detector	1000 (Only analysis, standard and method to be provided separately; separate charges for sample preparation: ₹1000)		
c	Sugars (Glucose, Xylose, Arabinose and other sugars) - Aminex column with RI detector	1500 (Only analysis, standard and method to be provided separately; separate charges for sample preparation: ₹1000)		
d	Sugar Polyols - Aminex column with RI detector	2000 (Only analysis, standard and method to be provided separately; separate charges for sample preparation: ₹1000)		
Additional Information				
1. Minimum charge per test report ₹ 500/-				
2. Rates are exclusive of GST etc.				
3. 20 % discount for commercial testing to student & ICAR Institute				
4. Total charges to be rounded to the nearest Rupee.				
5. Payment to be made through E Transfer/Cheque/DD favouring DIRECTOR, CIRCOT payable at Mumbai.				
6. For further Details contact Incharge, Test House				
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