

**CENTRAL INSTITUTE FOR RESEARCH
ON COTTON TECHNOLOGY**
(Indian Council of Agricultural Research)

**Test House Rules
and
Schedule of Fees for Tests**

**July 2005
Mumbai**

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FOREWORD

CIRCOT Test House was established in 1937. The main objective of the Test House is to carry out tests on samples of textile materials by standard methods/specifications prescribed by the party and to issue authoritative report. The facility of CIRCOT Test House is at present widely utilised by both Government and private organisations. Efforts are made from time to time to keep the Institute equipped with modern instruments.

The list of test methods and schedule of test fees are periodically revised to made up for escalation of input costs. The present schedule incorporates over 125 different tests and is effective from July 1, 2005. The general rules of CIRCOT Test House are as follows :

- *Samples are received for tests during working house between 10.00 A.M. and 5.00 P.M.*
- *Samples are tested and reports issued generally in the order in which they are received.*
- *ALL FEES FOR TESTS MUST BE PAID IN ADVANCE WHILE SUBMITTING THE SAMPLES. The amount should be paid either in cash or cheque (at par) / demand draft drawn in favour of the **Director, Central Institute for Research on Cotton Technology**, together with bank collection charges of Rs. 60/- if applicable. However, in the case of Government departments and public undertakings samples will be accepted without advance payment but the test report will be issued only after the test fees are received.*
- *The parties regularly submitting samples for tests can avail of a deposit scheme. The details of the scheme are available*

with the officer in charge of the Test House.

- The balance material after testing will not be returned unless a specific request is made to that effect by the parties at the time of submitting the samples for test. The balance material is expected to be taken back **within one month of the issue of the Test Report, beyond with the material will not be preserved.**
- Samples will be received for tests only if the minimum size and conditions prescribed for each test are satisfied. However, in special cases, samples found to be below the specified size may be accepted for testing, but the test certificates will be endorsed as SAMPLE BELOW REGULATION SIZE. However, there is no change in the test fees for such samples.
- X-ray Diffraction Radial Scan is accepted subject to the suitability of the samples for the test which must be submitted along with a certificate about the non-toxic nature of the samples.
- The Director, CIRCOT, may refuse to accept any sample or goods for testing without assigning any reason.
- The samples for tests must have the necessary identification number / mark / label. All relevant details of the samples may be furnished in the forwarding letter.
- Priority test facility is available. Against payment of an additional test fee of 50% over and above the fee given in the schedule, the sample will be taken up for test as soon as it is received.

Dr. S. Sreenivasan
Director

CENTRAL INSTITUTE FOR RESEARCH ON COTTON TECHNOLOGY

Schedule of Fees for Tests

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
1. TEST ON FIBRE			
1	Ginning Percentage by Laboratory Model Gin	100	1 kg kapas
2	Ginning Percentage by Commercial Gin	250	20 kg kapas
3	Percentage of Moisture	150	250 g air tight
4	Percentage of Waste in Raw Cotton		
	SP-1 Method	200	300 g
	SP-4 method	150	150 g
5	HVI Test (2,5% SL,UR, Mic & Tenacity)	200	250 g
	Colour Grade (extra)	50	
6	Span Length by Digital Fibrograph	130	300 g
7	Baer Sorter with diagram	300	300 g
8	Length of Staple Fibre as per BISFA Rules	350	Oil plate method
9	Denier of Staple Fibre by Cutting and Weighing Method	300	300 g
10	Denier of Staple Fibre by Vibroscopic method	800	
11	Fibre Weight per Unit Length by Counting method	120	

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
12	Fibre Weight per Unit Length by Micronaire	50	300 g
13	Single Fibre Strength and Elongation by INSTRON	750	300 g
14	Fibre Bundle Strength	125	Rs.25 extra for Elongation
15	Fibre Maturity By NaOH Method	150	300 g
16	AFIS Test Length, Maturity, Nep and Trash	500	Rs.50 extra for Distribution diagram
	Length and Maturity Module	200	300 g
	Nep parameter	200	
	Trash parameter	200	
17	Fibre Diameter	300	300 g
18	Fibre Perimeter by Image Analyser	500	300 g
19	<i>Qualitative</i> Identification of Fibres	200	300 g
20	<i>Quantitative</i> Identification of Fibres	250	300 g
21	HVI test and Microspinning	1000	500 g
22	Full Spinning on carded cotton (1 count)	2000	5.5 kg
	Full Spinning on carded cotton (2 counts)	2500	8 kg
	- Additional Count	500	10 kg

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
2. TESTS ON YARN			
23	Yarn Count	100	1 km
24	Count and Lea Strength	200	
25	Single Thread Strength and Elongation by KMI Tester	200	
26	Single Thread Strength and Elongation by Tensojet Tester	500	25 km Histogram & Stroke Diagrams Rs. 50 each
27	Single Thread Strength and Elongation by INSTRON	500	1 km / Individual readings Rs 100 extra
28	Twist in Single Yarn	200	500 m
29	Twist in Double Yarn (Doubling Twist)	100	
30	Twist in Cords and Cables	250	
31	Yarn Evenness U% with Imperfections	250	3 km
32	Yarn Evenness U% with Imperfections by Uster UT-4	500	Rs. 200 extra 500 per bobbin for yarn/fabric Appearance. Simulation .

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
33	Uster Classimat for Yarn Faults	800	200 km
34	Yarn Appearance Grade by ASTM Method	100	500 m
35	Yarn Hairiness by Zweigle Hairiness Tester (hairs of 1, 2, 3, 4, 6, 8, 10, 12, 15, 18, 21, and 25 mm; Cumulative & Differential mode)	600	20 km
36	<i>Qualitative</i> Identification of Fibres in Yarns and Fabrics	250	300 g
37	<i>Quantative</i> Blend Analysis of Yarn - 2 Components	450	Rs. 200/ extra charge for each compon- ent over two

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
3. TESTS ON WOVEN / KNITTED FABRIC			
38	Type of Weave and Ply	100	2 m or full piece
39	Length of Cloth	80	
40	Width of Cloth	80	
41	Thickness of Cloth	100	
42	Weight per square or linear metre of cloth	100	
43	Ends & Picks / Wales & Courses	100	
44	Counts of Warp and Weft Yarn	200	
45	Strength of Cloth	300	Rs. 50 extra for Elongation at Break
46	Fabric Strength and Elongation by INSTRON	500	2 m or full piece
47	Water Permeability (Cone Test)	100	piece
48	Water Repellency - Spray Tester AATCC Test Method : 22 - 2001	300	
49	Water Resistance Impact Penetration Test AATCC Test Method : 42-2000	300	
50	Shrinkage %	150	
51	Air Permeability	200	
52	Pilling Test	250	
53	Tearing Strength by Elmendorf method	125	

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
54	Crease Recovery	250	2 m or full
55	Flex Abrasion Test	200	piece
56	Bursting Strength by UbiqueTester	200	
57	Drape Test	200	
58	(a) Fabric Handle by KESFB (<i>Tensile, Shear, Compression, Bending and Surface</i>)		
	Woven fabrics	3500	3 m or full
	Knitted fabrics	4500	piece
	(b) Individual Module Testing -		
	Woven fabrics	750	
	Knitted fabrics	950	
	(c) KES-F7-II <i>Thermolabo II</i>		
	q-max (warm/cool feeling)	500	
	Thermal conductivity (by steady heat flow method)	800	
	Heat keeping property (dry method)/ Thermal Insulation Value (TIV)	800	
	Heat keeping property (wet method)	800	3 m or full
	Moisture transport (heat of evaporation method)	800	piece
	(d) KES-F8-API Air resistance/air permeability	500	

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
59	Vertical Flammability Test ASTM D 6413-1994	500	1 m or full
60	Inclined Flammability Test ASTM :D 1230-94	500	piece
61	Horizontal Flammability Test FMVSS 302 : DIN 75200 ISO 3795	500	
62	Weft Knitting from Supplied yarn 10" or 12" dia	300	upto 5 metres of fabric
	26" or 30" dia.	700	

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
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4. CHEMICAL & PHYSICO-CHEMICAL TESTS

63	Honey Dew : <i>Qualitative</i> Test	200	250 g fibre or yarn
64	Honey Dew : <i>Quantitative</i> Test	300	
65	Desizing or Definishing	250	1 m
66	Percentage of Size / Finish	250	
67	Scouring Loss %	350	
68	Fluidity Test	500	
69	Alkali Solubility Number	300	
70	Ash Content	300	
71	Water Soluble matter	250	
72	pH Determination	200	
73	Oil Content of Fibre ,Yarn & Fabric	450	
74	Fluorescence Test for Optical Whiteners	200	
75	Acidity / Alkalinity	250	
76	Wax Content	300	
77	Water Absorbency of Textile Materials	250	
78	Quantitative Blend Analysis of Fabric - 2 Components	450	Rs. 200/-extra for each additional component over two

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
79	Quantitative Blend Analysis of Fabric - Warp & Weft separately	1000	1 m
80	Nature of Dye (Vat or Reactive)	300	1 m
81	Colour Fastness to Washing as per BIS Test 1,2,3,4	250	Rs.100 extra for every additional washing
82	Colour Fastness to Washing as per BIS Test 5	400	1 m
83 a)	Dimensional changes in Automatic Home Laundering of Woven and Knitted fabrics. AATCC 135 -2001	500	
b)	Garments AATCC : 150-2001 / ISO 3759	500	
84	Colourfastness to Dry Cleaning AATCC : 132 - 1988 & ISO : 105-DO1	500	
85	Colour Fastness to Light	500	1 m
86	Colour Fastness to Perspiration	500	
87	Colour Fastness to Rubbing	200	
88	Colour Fastness to Bleaching	200	
89	Proofing Content	600	
90	Limiting Oxygen Index	400	
91	TGA	800	
92	K/S Value(L,a, b,C, H)	400	

Item	Test		Fee per Sample (Rs.)	Minimum Sample Size/Remarks
93	DSC	1 sample	4000	1 m
		2-3 samples	2500 each	
		4 samples	2000 each	
		5 samples onwards	1500 each	
94	Solvent Extractable		500	1 m
95	Chromium (%)		300	
96	Bound Organic Matter		1000	

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
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5. MICROBIOLOGICAL TESTS

97	Soil Burial Test	500	3 m fabric
98	Presence of Mildew	350	
99	Mildew Resistance	500	
100	Antifungal Activity	500	
101	Antibacterial Activity	700	
102	Lyophilization	2000	

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
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6. TESTS ON PAPER

103	Testing of Paper Quality as per BIS standard	1500	12 papers full size
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7. TESTS ON COTTON LINTER

104	Alpha-Cellulose Content (with purification)	750	250 g
105	Purification of Linters (Cleaning, Kiering and Bleaching)	500	
106	Cellulose Yield	500	250 g
107	Ash Content	300	
108	Iron Content in Ash	450	
109	Acid Insoluble Ash	350	
110	Ether Soluble Matter	300	

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
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8. ECO TESTS

111	HPLC Scanning (<i>Qualitative</i>)	2000	250 g
112	FTIR Scanning (<i>Qualitative</i>)	600	
	K Br Method	750	
113	UV Absorbance Scan	300	
114	UV Transmission Scan	300	
115	Elemental Analysis by AAS	200	Rs.150/- extra for Digestion
116	Total Organic Carbon Analysis	ppm level 200	250 g
		ppb level 300	
117	Gas Chromatography- Mass Spectrometry (GC-MS) - 1 peak	1000	Rs.150/- extra for each additional peak

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
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9. TESTS ON COTTON SEED

119	Oil Content of Cotton seed	400	250 g
120	Hull and Kernel Percentage of Cotton Seed	200	
121	Protein Content in Cotton Seed	350	Acid Delinting Rs. 500/-extra
122	Free or Total Gossypol Content in Cotton Seed	350	

Item	Test	Fee per Sample (Rs.)	Minimum Sample Size/Remarks
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10. SPECIAL TESTS

123	Scanning Electron Microscope Photomicrograph	2000	Extra copy Rs. 50
124	X-ray Diffraction Radial Scan	1-10° 9-40° 4-50° 4-60° 4-80°	5000 800 1200 1500 1800 Rs.100/- extra per sample
125	X-ray Orientation (Texture) Scan	3000	
126	X-ray Fluorescence Spectrometry		
	a) Pressed Pellet Method		
	i) Qualitative Scan (upto 5 Elements)	3000	250 g
	Additional element	400 each	
	ii) Full Scan	7000	
	b) Liquid Analysis Under Helium Medium		
	i) Qualitative Scan	3100	250 g
	ii) Full Scan	8800	
127	Surface Tension	1500	

11. ADDITIONAL CHARGES etc.

- Minimum** charge for each test report Rs. 200
- Rates are **exclusive** of Service tax & Education Cess as applicable.

CIRCOT CALIBRATION COTTON

CIRCOT is offering indigenously prepared calibration cotton standard reference material having quality characteristics in conformity with those of USDA calibration cottons.

Two sets of CIRCOT calibration cotton standards are available on advance payment basis.

- For Conventional Stand alone Instruments
- For High Volume Instrument System
- Net weight of each sample is 200 grams.

For further details please contact:

Officer in Charge, Yarn Testing Section, CIRCOT HQ (Intercom Ph. Extn nos. : 443 to 446).

CIRCOT TECHNOLOGIES AVAILABLE FOR TRANSFER

Products

Kisan Gin, CLOY Gin and Lilliput Gin
Ginning Percentage Balance
Kapas Extractor
Inclined type Pre-Cleaner
Halo Length Disc
Boll Hardness tester
Variable Speed Gin
Cotton Stalk Compacting Machine

Processes

Pulp and Paper, Particle Board and
Corrugated Boxes from Cotton Plant Stalk
Biogas from Textile Mill Waste
Mushroom Crop on Agro-Wastes
Dyeing of Cotton Fabrics with Natural Dyes
Compost from Ginnery Waste
Absorbent Cotton from Non-Spinnable
Cotton

Please Contact for further details: Head of Department, Technology Transfer Division, CIRCOT HQ (Intercom Ph. Extn no. : 121).

CIRCOT ECO - TESTING LABORATORY

Avail CIRCOT services for detection and estimation of the following prescribed eco-parameters & wet chemical analysis:

- Banned Aromatic Amines
- Phentochlorophenel (Pcp)
- Banned Pesticides
- Toxic Materials
- Free Formaldehyde
- Halogenic Carriers

CIRCOT Eco- Lab is equipped with the following sophisticated equipment

- High Performance Liquid Chromotograph
- High Performance Thin Layer Chromotograph with Electron Capture
- Flame Ionisation
- NPD and Mass Detector Systems
- UV-VIS Recording Spectrometer
- Total Organic Carbon Analyser

Please Contact for further details: : Principal Scientist in Charge, Eco Lab, CIRCOT HQ (Intercom Ph. Extn No. : 156).

***Attention !!! Paper Mills, Traders and Consumers
!!!***

PAPER AND PAPER BOARDS TESTING FACILITIES OF CIRCOT

Complete range of tests as per Bureau of Indian Standards and
TAPPI Standards

List of Paper & Paper Boards Tests

- **GSM / Grammage**
- **Burst Strength**
- **Stiffness**
- **Brightness**
- **Porosity**
- **Cobb Test**
- **Thickness**
- **Tearing Strength**
- **Abrasion**
- **Opacity**
- **Smoothness**
- **Softness**
- **Tensile Strength**
- **Folding Endurance**
- **Printability**
- **Gloss**
- **Water Absorbency**

For details contact : Scientist-In charge, Paper Testing Lab.,
CIRCOT HQ, Intercom Ph. Extn. No. 217.

CIRCOT Training Courses

Kind Attention : Cotton/Textile Trade, Industry & Mills

Kindly depute your personnel to the following CIRCOT Training Courses conducted regularly in Mumbai HQ & Nagpur for the maximum development of Human Resources and optimum use of machineries for higher productivity.

HQ, Mumbai

Course	Tailored for
• Textile Testing	Cotton Traders, Graders, Brokers & Merchants
• Ginning & Textile Testing	Ginning Factory Supervisors and Technicians
• Advanced Fibre Testing using HVI & AFIS	Textile Mill Laboratory Technicians

Ginning Training Center, Nagpur

Courses	Tailored for
• Modern Ginning and Quality Assessment of Fibre	Ginning Factory Technicians, Supervisors

For details contact:

- *Head of Department, Technology Transfer Division, CIRCOT, Mumbai 400 019.*
- *Technical Officer In charge, Training Unit, CIRCOT, Mumbai 400 019.*
- *Senior Scientist In charge, Ginning Training Center of CIRCOT, Nagpur 440 023.*

COMMERCIAL TESTING AT CIRCOT REGIONAL STATIONS

Cotton Trade, Industry, Mills etc. are invited to take advantage of Commercial Testing facilities at the following 6 CIRCOT Regional Centres, viz. Nagpur, Surat, Coimbatore, Sirsa, Dharwad and Guntur apart CIRCOT HQ., Mumbai.

Please contact Officer In Charge of the respective CIRCOT Regional Center for further details. :

- **Nagpur**

Ginning Training Centre of CIRCOT, Amravati Road, Wadi, Nagpur 440 023.

Ph.: 0712-2500289, Fax 0712-2500 592

E.mail gtc_ngp@rediffmail.com

- **Coimbatore**

Regional Unit of CIRCOT, TNAU Campus, Near Cotton Breeding Station, Coimbatore 641 003, Tamil Nadu.

Telefax : 0422 2438506

E.mail circotcbe@rediffmail.com

- **Surat**

Regional Unit of CIRCOT, Agricultural Farm, Athwa, Surat 395 007, Gujarat.

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E.mail: seniorscientist_1@rediffmail.com

- **Dharwad**

Regional Unit of CIRCOT, Agricultural Research Station,

Dharwad Farm, (BPO), Dharwad 580 007, Karnataka.

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