

## POLYMER & TECHNICAL TEXTILES LABORATORY

COATED/LAMINATED/FOAMED FABRICS, PLASTICS, RUBBER, LEATHER, FOOTWEAR, ZIPPER, BUTTONS, TAPES, ADHESIVES, POLISHES, POLYMERS AND TECHNICAL TEXTILES (COMPOSITES, AUTOMOTIVE MATERIALS, MEDICAL TEXTILES, GEO TEXTILES, ETC.) TESTING

S.No.	Nature of Test	Instrument	Sample Size	Testing Charges (Rs.)
1.	Acidity	—	—	300.00
2.	Adhesion Strength (Peel Strength, Coating Adhesion Strength)	Tensile Strength Tester	—	500.00
3.	Adhesion Test for Shoes	Shoe Adhesion Tester	One pair of shoe	600.00
4.	Ageing -10°C to -40°C	Deep Freezer	—	500.00/day
5.	Ageing ambient to -10°C	Deep Freezer	—	300.00/day
6.	Alc. Potash Extract	—	50 gm.	750.00
7.	Ash Content	Muffle Furnace	50 gm.	300.00
8.	Bending Resistance	—	¼ mtr.	300.00
9.	Bound Organic Substances	—	100 gm. .	3000.00
10.	Bursting Strength	Bursting Strength Tester	½ mtr.	400.00
11.	Carbon Black in Rubber	—	50 gm. .	800.00
12.	Carboxyl Group	—	100 gm.	900.00
13.	Chlorine Evaluation of Polymers	—	50 gm.	900.00
14.	Chromium Content	—	50 gm.	600.00
15.	Cloudiness	—	—	600.00
16.	Cohesive Strength	—	½ mtr.	600.00
17.	Colour Bleeding Test	—	—	300.00
18.	Colour Fastness in Absence of Day Light	—	¼ mtr.	800.00
19.	Colour Fastness to Rubbing for Leather	—	—	600.00
20.	Compression Elasticity Ratio	—	—	500.00
21.	Compression Set	Compression Set Apparatus	—	600.00
22.	Cut Growth	Ross Flex Tester	—	600.00/150000 cycles
23.	Coating on Lab Coater	Mathis Lab Coater	—	1500.00
24.	Dart Impact Strength	Dart Impact Tester	—	600.00

25.	Degree of Tannage	—	50 gm.	3000.00
26.	Density	—	—	300.00
27.	Differential Number	—	—	300.00
28.	Differential Scanning Calorimetric Analysis	Differential Scanning Calorimeter	10 gm.	1500.00
29.	Dimension - Thickness - Length, Width etc.	—	—	150.00 100.00*
30.	DIN Abrasion Test	Din Abrasion Tester	—	600.00
31.	Dimensional Change	—	—	300.00
32.	Exposure to Carbon Arc	—	—	25.00/Hour (In multiple of 100 Hours)
33.	Extrusion on Lab Extruder	Lab Mixing Extruder	100 gm.	1500.00
34.	Filler % age in PVC Products	—	50gm.	900.00
35.	Flammability Test	Flammability Test Apparatus	—	500.00
36.	Flash Point	Flash Point Apparatus	250 gm.	300.00
37.	Flexing Endurance	Flex Meter for Leather	—	600.00 / 150000 cycles
38.	Flexural Strength	Tensile Strength Tester	—	500.00
39.	Fuel Contamination Test	—	—	3000.00
40.	Gelling Test	—	—	300.00
41.	Glass Transition Temperature	Differential Scanning Calorimeter (DSC)	One gm.	1500.00
42.	Heat Ageing	—	—	150.00/day
43.	Heat Ageing and Exudation	—	—	2400.00
44.	Heat Distortion Temperature	HDT Tester	—	500.00
45.	Hide Substances	—	50 gm.	900.00
46.	Humidity Ageing	—	—	250.00/day

\* No Discount to members

47.	Hydrogen Sulphide Resistance	—	—	600.00
48.	Identification of Textile in Technical Textile	—	100 gm	450.00
49.	Ignition Test	—	—	450.00
50.	Ignitability Test (includes Cigarette, Butane Gas, Wooden Crib Tests)	—	—	6000.00
51.	Identification of Plastics	—	100 gm.	2000.00
52.	Identification of Rubber	—	100 gm.	3000.00
53.	Intrinsic Viscosity	—	50 gm.	1500.00
54.	Izod Impact Strength	Izod Impact Tester	—	900.00
55.	Limited Oxygen Index	LOI Tester	—	1500.00
56.	Mass	Electronic Balance	—	150.00
57.	Melt Flow Index	Melt Flow Index Tester	100 gm.	500.00
58.	Melting Point	- Differential Scanning Calorimeter (DSC)	One gm.	1500.00
		- Melting Point Apparatus (Capillary Method)	One gm.	300.00
59.	Moisture Content	Hot Air Oven	50 gm.	300.00
60.	Nitrogen Content	—	50 gm.	750.00
61.	Odour Small Test	—	—	600.00
62.	Oil Resistance	—	—	600.00
63.	Permanent Set	—	—	600.00
64.	pH	pH Meter	50 gm.	150.00
65.	Plastic Sheet Preparation	—	—	900.00
66.	Plasticiser Content	—	—	800.00
67.	Proofing Content	—	—	500.00
68.	Puncture Test	—	—	600.00
69.	PVC Resin %age in PVC Products	—	50 gm.	1200.00
70.	Residual Strain Ratio	—	—	500.00

71.	Resilience	—	—	500.00
72.	Resistance to cold	—	¼ mtr.	900.00
73.	Resistance to Cracking	—	¼ mtr.	300.00
74.	Resistance to Damage by Flexing	Demattia Flex Tester	½ mtr.	600.00 / 150000 cycles
75.	Resistance to Heat and Loss of Coating Mass	—	½ mtr	800.00
76.	Resistance to Spread of Flame	—	—	450.00
77.	Rockwell Hardness	Hardness Tester	—	400.00
78.	Rubber Polymer Content with Carbon Black	—	100 gm.	4000.00*
79.	Rubber Polymer Content without Carbon Black	—	100 gm.	3200.00*
80.	Rubber Sample Preparation from Footwear etc.	—	—	500.00
81.	Seam Strength	Tensile Strength Tester	—	450.00
82.	Shore Hardness	Hardness Tester	—	150.00
83.	Shrinkage	—	—	300.00
84.	Softness	—	¼ mtr.	300.00
85.	Softness Number	—	¼ mtr.	500.00
86.	Solid Content	Hot Air Oven	50 gm.	300.00
87.	Solvent Extractable Substances	—	50 gm.	450.00
88.	Specific Gravity	Sp. Gravity Bottle	100 gm.	300.00
89.	Stitch Tear Strength	Tensile Strength Tester	10 cm. x 10 cm.	500.00
90.	Stretch Test of Tape	—	—	3000.00
91.	Sulphated Ash of Water Soluble Matter	—	50 gm.	500.00
92.	Surface Resistance to Chemicals	—	½ mtr.	600.00
93.	Swelling Test	—	—	500.00
94.	Taber Abrasion - Upto 1000 cycles - Upto 1500 cycles - Upto 2000 cycles	Taber Abrasion Tester	—	900.00 1650.00 2400.00
95.	Tackiness	—	—	300.00

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96.	Tear Strength	Tensile Strength Tester	—	400.00
97.	Tensile Strength and Elongation	Tensile Strength Tester	—	500.00
98.	Tensile Strength at Specified Elongation	Tensile Strength Tester	—	500.00
99.	Tensile Strength/ Breaking Load	Tensile Strength Tester	—	450.00
100.	Tension Set	Tension Set Apparatus	—	600.00
101.	Thermal Gravimetric Analysis (TGA)	Thermal Gravimetric Analyser	10 gm.	1500.00
102.	Thermal Insulation	Thermal Conductivity Apparatus	—	1000.00
103.	Thermal Stability	—	—	300.00
104.	Tongue Tear Strength	Tensile Strength Tester	¼ mtr	500.00
105.	UPF ( UV Protection Factor)	UV Transmission Analyser	—	600.00
106.	Vicat Softening Temperature	Vicat Softening Point Apparatus	—	500.00
107.	Volatile Loss	—	—	300.00
108.	Water Vapour Permeability of Leather	Water Vapour Permeability Apparatus	—	600.00
109.	Water Absorption	—	—	750.00
110.	Water Soluble Matter	—	—	450.00
<b>Zipper (Slide Fastner)</b>				
S.No.	Nature of Test	Instrument	Sample Size	Testing Charges (Rs.)
111.	Fold Over Security of Textile chain for a) Obverse Fold b) Reverse Fold	Tensile Strength Tester	— —	600.00 600.00
112.	Remeshability of Fastener	-	—	450.00
113.	Resistance to Abrasion under Load Cycles	Abrasion Tester	—	600.00
114.	Security of Attachment of Bottom Stop	Tensile Strength Tester	—	600.00
115.	Security of Attachment of Puller to Slider	Tensile Strength Tester	—	600.00
116.	Security of Attachment of Top Stop	Tensile Strength Tester	—	600.00

117.	Security of Inter-Locking of Textile Chain to Lateral Load	Tensile Strength Tester	—	600.00
118.	Security of Slider Lock Holding	Tensile Strength Tester	—	600.00
119.	Chain Crosswise Strength	Tensile Strength Tester	—	600.00
120.	Security of Attachment of Retainer to Longitudinal Load (Open - End)	Tensile Strength Tester	—	600.00
121.	Security of Attachment of Retainer to Lateral Load (Open - End)	Tensile Strength Tester	—	600.00

**Note :**

1. For tests in Sr. No. 29, 78 & 79 no discount is provided.
2. Colour fastness can also be tested for the samples.
3. Tests are being carried out as per IS, ASTM, DIN, ISO, JASO, BS, AATCC, EN, Defence, DGS&D, UIC and any other method as per the party's request.
4. **Polymer & Technical Textiles lab can also create facilities of tests other than above as per the requirement of parties.**

**Northern India Textile Research Association (NITRA)** is one of the premier Textile Research Organisations in the country supported by Ministry of Textiles, Govt. of India. It is the first and only ISO 9001 certified Textile Research Organisation in India. Apart from conducting research & development, technical consultancy and job oriented HRD programs, NITRA also offers exhaustive testing facilities to textile, apparel and allied industries through its five **NABL accredited laboratories (NABL Accreditation Certificate Numbers: T-0852 & T-0853):**

1. Chemical Quality Evaluation (CQE) Lab
2. Eco Lab
3. Environment Lab
4. Physical Quality Evaluation (PQE) Lab
5. Polymer & Technical Textile (PTT) Lab

These laboratories carry out tests as per national and international standards. In addition to these, testing is also carried out as per the customer's specifications/methods.

General Information to the customers :

- \* The samples should be accompanied by a covering letter clearly indicating the nature of tests and testing standard(s) to be followed.
- \* Samples are tested on first come first serve basis. However, for "Out of turn priority," charges will be 50% extra.
- \* Payment including Service Tax as applicable (10.2% as on 1st January 2006) should be made in advance, either by Cash or Demand Draft in favour of "Northern India Textile Research Association" payable at Ghaziabad or Delhi.
- \* A discount of 30% will be offered to NITRA members.
- \* The test result are sent by Post. However, on customers request, results can also be sent by courier or fax.