



LABORATORY INFRASTRUCTURE AND TESTING FACILITIES

Ahmedabad Textile Industry's Research Association (ATIRA)

A. COMPOSITES RELATED FACILITIES

1. Mechanical Testing Facilities

Mechanical Testing Equipment Summary

Sr. No.	Name of Equipment	Quantity
1	UTM 100 kN	1
2	UTM 400 kN	1
3	Pendulum Impact Tester (25 J)	1
4	Drop Weight Impact Tester (1800 J)	1
5	Rockwell Hardness Tester	1
6	Barcol Impressor	1
7	Durometer (Shore A)	1
8	Durometer (Shore D)	1
9	Servo Hydraulic (Tension-Torsion ± 100 kN, 1 kNm)	1
10	Density Kit	1
11	Brookfield Viscometer	1

2. Heat & Flame Testing Facilities

Heat & Flame Testing Equipment Summary

Sr. No.	Name of Equipment	Quantity
1	Limiting Oxygen Index Tester & TOI	1
2	UL-94 Flammability Tester	1



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Sr. No.	Name of Equipment	Quantity
3	Toxicity Tester	1
4	Ignitability Tester	1
5	IMO / Lateral Spread of Flame Tester	1
6	Smoke Density Tester	1
7	Cone Calorimeter Tester	1
8	Flooring Radiant Panel Tester	1
9	Resistance to Spread of Flame Tester	1
10	Deterioration of Visibility due to Smoke Tester	1
11	Cigarette & Flame Testing Center	

3. Electrical Testing Facilities

Electrical Testing Equipment Summary

Sr. No.	Name of Equipment	Quantity
1	High Voltage Tester	1
2	Dry Arc Resistance Tester	1
3	Comparative Tracking Index Tester	1
4	Glow Wire Tester	1

4. Non-Destructive Testing (NDT) Facilities

Non-Destructive Testing Equipment Summary



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Sr. No.	Name of Equipment	Quantity
1	Phased Array Portable (A, B & C Scan) OMNISCAN MX2	1

5. Composite Manufacturing Laboratory Facilities

Composite Manufacturing Lab – Equipment / Assets Summary

Sr. No.	Name of Equipment / Facility	Quantity
1	Cold Storage	2
2	Vacuum Infusion Set-up	1
3	Mandrel Extraction Machine	1
4	Pultrusion Machine	1
5	Oven (4 × 8 ft)	1
6	Oven (400 × 400 mm)	1
7	Oven (4 × 4 × 3 m)	1
8	Hydraulic Press (300 T)	1
9	Hydraulic Press (3000 T)	1
10	Dryer	1
11	Sample Cutting Machine	1
12	Pallet Trolleys	1
13	Scissor Lift	1



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Sr. No.	Name of Equipment / Facility	Quantity
14	Stackers	1
15	2 Ton Lifting Capacity Hydraulic Engine Crane	1
16	Surface Table	1
17	Micrometer (0–300 mm)	2
18	Resin Mixer (Pultrusion)	1
19	Weighing Balance (1 Ton)	1

6. Laboratory Instruments & Supporting Equipment

Laboratory Instruments Summary

Sr. No.	Name of Equipment	Quantity
1	Oven (100°C)	1
2	Oven (400°C, Chamber 60 × 60 × 90 cm)	1
3	Probe Sonicator (ATP-1200W, 19.5–20.5 kHz)	1
4	Bath Sonicator	1
5	Sourcimeter (Model 2450)	1
6	Digital Multimeter (HT118A)	1
7	Mechanical Stirrer (RQ-122, 4000 RPM)	1
8	Magnetic Stirrer	1
9	Weighing Balance (200 g)	1
10	Weighing Balance (5 kg)	1



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B. Textile Testing Laboratory Facilities

1. Geotextile Testing Facilities

Geotextile Laboratory Equipment Summary

Sr. No.	Name of Equipment	Quantity
1	Global UV Tester (Global UV 200)	1
2	Pull Out Tester	1
3	UTM 50 kN (Instron)	1
4	Geosynthetic Protection Efficiency Tester (Enerpac)	2
5	UTM 100 kN (Tinius Olsen)	1
6	Weathering Tester & Chamber (Q-Lab QUV)	2
7	Liquid Porometer	1
8	BAW Abrasion Tester	2
9	UTM 50 kN (DSH Trio)	2
10	Cold Impact Chamber	1
11	Direct Shear Box (APS GmbH)	1
12	In-plane Water Permeability Tester (with Load)	1
13	In-plane Water Permeability Tester (without Load)	1
14	Water Permeability Tester (Falling Head)	1
15	Water Permittivity Tester (Constant Head with Load)	1
16	Carbon Black Content Analyser	1
17	Creep Testing Machine (Geoscope)	1
18	UV Spectrophotometer	1
19	Carbon Black Dispersion Tester (Qualitest)	1
20	Melt Flow Index Tester	1
21	Cone Drop Apparatus	1