

### ATIRA Composite and Heat & Flame Testing Lab

Sr. No.	Type of testing - Mechanical	Testing facility available		Standards	Applicable testing charges
		Laboratory	Instrument detail		
1	Tensile test (Strength, Modulus and Elongation)	Composites (Mech)	Instron 5982, Instron 5988	ASTM D638, ASTM D3039, 527-2,4,5	Tensile test- INR 5500 ( Upto Thickness 8mm), INR 11000 (Thickness >8mm)
2	Poisson Ratio	Composites (Mech)	Instron 5982	ASTM D3039	INR 20,000
3	Flexural test	Composites (Mech)	Instron 5982	ASTM D695, ISO 14125	INR 3000
4	ILSS/ Short Beam strength	Composites (Mech)	Instron 5982	ASTM D2344, ISO 14130	INR 3000
5	In-Planes shear test	Composites (Mech)		ASTM D3518, ISO 14129	INR 20,000
6	Izod Impact test	Composites (Mech)	Izod Impact Tester	ASTM D256, ISO 180	INR 3000
7	Charpy Impact Strength	Composites (Mech)	Izod Impact Tester	ISO 179, DIN 53453, DIN 53753, BS 2782	INR 3000
8	Drop Weight Impact Test	Composites (Mech)	Drop Weight Impact Tester	ASTM D3763 ISO 6603-1&2	INR 5000
9	Heat Deflection Temperature (HDT)	Composites (Mech)	HDT 3 VICAT	ISO 75-1&2, ASTM D648 Method B	INR 2500
10	Vicat Softening Point (VSP)	Composites (Mech)	HDT 3 VICAT	ISO 306, ASTM D1525	INR 2500
11	Compression Strength & Modulus	Composites (Mech)	Instron 5982, Instron 5988	ASTM D695, ISO 14126	INR 3000
12	Rockwell Hardness Test	Composites (Mech)	Rockwell Hardness Tester	ASTM D785-08, ISO 2039-2	INR 2500
13	Barcol Hardness Test	Composites (Mech)	Barcol Hardness Tester	ASTM D2583-13	INR 1000
14	Shore Hardness A	Composites (Mech)	Shore Hardness Tester A		INR 2500
15	Shore Hardness D	Composites (Mech)	Shore Hardness Tester D		INR 2500
16	Density	Composites (Mech)	Density Kit	ASTM D792	INR 1000
17	Cross Breaking Strength	Composites (Mech)	Instron 5982	IS 1998-1962	INR 3000
18	Water Absorption	Composites (Mech)	Wiegging Balance	ASTM D570	INR 1000
19	Ultimate Bearing Strength	Composites (Mech)	Instron 5982	ASTM D953	INR 3000
20	Fiber Volume Fraction/ Glass Content	Composites (Mech)	Wiegging Balance, Muffel Furnace	ISO 1172	INR 1000
21	Lap Shear Test	Composites (Mech)	Instron 5982	DIN EN 1465/DIN 53283/ISO 4587	INR 5000
22	Fatigue Test	Composites (Mech)	ServoHydraulic Tension torsion	ISO 13001	
23	Full Section ( Bending Test)	Composites (Mech)	Instron 5988	CTI 137, ASTM D8089, BS EN 13706	INR 10000
24	Full Section ( Buckling Test)	Composites (Mech)	Compression machine	Non standard	INR 10000
25	Glass Transection Temperature	Composites (Mech)	DSC		INR 3000

Sr. No.	Type of testing - Heat & Flame testing	Testing facility available		Standards	Applicable testing charges
		Laboratory	Instrument detail		
1	Heat Release Rate ( HRR)	Composites (HFT)	Cone Calorimeter	ISO 5660,ASTM E 1354	INR 20000
2	Smoke Density	Composites (HFT)	Smoke Density Chamber	ISO 5659-2/IMO FTPC part-2	INR 20000
3	Spread Of Flame	Composites (HFT)	IMO	ISO 5658-Part 2&4,	INR 125000
4	Flooring Radant Panel Test	Composites (HFT)	FRP	EN ISO 9239-1 Part-1 ASTM E 648,ASTM E970,NFPA 253	INR 110000
5	Toxicity Index Test	Composites (HFT)	Toxicity	NES 713,NCD 1409	INR 50000
6	Single Flame Source Test/Ignitibility test	Composites (HFT)	ISO 11925-2	EN ISO 11925-2	INR 15000
7	Limiting Oxygen Index	Composites (HFT)	LOI	ISO 4589-2,ASTM D2863, IS 13501,IS 13660	INR 5000
8	Horizontal/Vertical Flammability	Composites (HFT)	UL-94	UL-94,IS 6746,ASTM D635	INR 2500

Sr. No.	Type of testing -Electrical testing	Testing facility available		Standards	Applicable testing charges
		Laboratory	Instrument detail		
1	Dielectric strength	Composites (Elec)	Dielectric strength tester	ASTM D149	INR 1800
2	Dry Arc Resistance	Composites (Elec)	Dry arc resistance tester	ASTM D495	INR 1500
3	Glow wire test	Composites (Elec)	Glow wire test apparatus	IEC 60695 1-2	INR 1600
4	Comparative tracking Index	Composites (Elec)	Comparative tracking index tester	IEC 60112	INR 1600