

Sr.No	Instrument	Application
1	Fourier transform infrared spectroscopy	Polymer & chemical characterization
2	UV/VIS Spectroscopy	Polymer & chemical characterization
3	Differential scanning calorimetry (DSC)	Thermal Analysis
4	Thermogravimetric Analysis (TGA)	Thermal Analysis
5	Electrochemical Impedance Spectroscopy (EIS)	Anti-corrosion testing
6	Optical Contact Angle Meter (OCA)	Surface energy & contact angle measurement
7	Gas chromatography (GC)	Polymer & Material characterization
8	Universal Testing Machine (UTM)	Mechanical Testing
9	Gel Permeation chromatography (GPC)	Molecular weight distribution of polymer
10	Glossometer	Gloss value of paints & coatings
11	Wedge Bend Tester	Mechanical Flexibility Test for packaging
12	Color spectrophotometer	Color and transparency properties.
13	Color comparator	Coating characterization
14	Cathodic Disbondment Test	Anti-Corrosion Testing
15	Salt Spray ASTM B 117	Anti-Corrosion Testing
16	Salt Spray ASTM G 85	Anti-Corrosion Testing
17	Humidifier (IS 101)	Anti-Corrosion Testing
18	Cyclic Corrosion Tester	Anti-Corrosion Testing
19	QUV weatherometer	Anti-Corrosion Testing
20	SWAAT analysis	Anti-Corrosion Testing
	SO ₂ Chamber	Anti-Corrosion Testing
	Electrochemical Impedance Spectroscopy (EIS)	Anti-Corrosion Testing
20	Impact Tester	Mechanical Flexibility Test
21	Scratch hardness	Coating Hardness Test
22	Cupping tester	Forming Test
23	Conical mandrel	Mechanical Flexibility Test
24	Cylindrical mandrel	Mechanical Flexibility Test
25	Pencil hardness	Coating Hardness Test
26	Taber abrasion	Mechanical dry abrasion resistance test
27	Wet Scrub	Mechanical wet abrasion resistance test
28	Pull off adhesion	Mechanical Adhesion Test
29	Pin hole detector	Coating characterization
30	Conductivity meter	Ionic conductivity measurement
31	Refractometer	Refractive Index determination
32	Autoclave reactor	Coating characterization w.r.t pressure
33	Cross cut Adhesion Tape	Mechanical Adhesion Test
34	Drying accessories for ASTM	Drying time recorder for the coating
35	Rocker hardness tester	Coating Hardness determination
36	Surface Roughness Meter	Surface roughness measurement
37	Karl Fisher	Raw material & chemical characterization
38	pH meter	Paint & Polymer characterization

40	Wt/lit cup	Paint Properties
41	Water vapour permeability cup	Coating characterization
42	Ford cup	Paint Properties
43	Hegmen gauge	Paint Properties
44	WFT meter	Wet Coating Thickness Measurement
45	Dry film thickness	Coating thickness measurement
46	Bubble viscometer	Viscosity
47	Incubators	Paint stability testing
48	Muffle furnace	High Temperature Application
49	Stereo Microscope	Film properties
50	Binuclear Microscope	Film properties
51	NCO content	Polymer & chemical characterization
52	Hydroxyl Value	Polymer & chemical characterization
53	Zeta potential & Particle size	Material characterization
54	Scanning Electron Microscope	Material characterization
55	EDAX	Material characterization
56	Heavy metal determination by ICP	Paint Properties
57	Dynamic Surface Tensiometer (upto 15 min)	Material characterization
58	Determination of epoxy content of paint and resin	Resin & Paint Properties
59	Determination of acid value of paint and resin	Resin & Paint Properties
60	Determination of amine value of paint and resin	Resin & Paint Properties
61	Determination of Hydrolysable chlorine content of paint and resin	Resin & Paint Properties
62	Determination of isocyanate content of paint and resin	Resin & Paint Properties
63	Determination of unsaturation (IODINE value) in resin	Resin & Paint Properties
64	Determination of moisture content	Resin & Paint Properties
65	Determination of Zn, Pb and Cr content in paints	Resin & Paint Properties
66	Determination of hydroxyl value content	Resin & Paint Properties
67	Comparison of Color values (Gardner)	Resin & Paint Properties
68	Saponification value	Resin & Paint Properties
69	Specific gravity of resin and paint	Resin & Paint Properties
70	Non-volatile content of resin and paint	Resin & Paint Properties
71	Volume Solid of paint	Paint Properties
72	pH and conductivity of resin and paint	Resin & Paint Properties
73	Oil Absorption value	Resin & Paint Properties
74	Test for residue on sieves on pigments	Pigment properties
75	Test for pigment content of paint	Paint Properties
76	Testing for tinting strength for color pigment	Pigment properties
77	Coverage of paint and coating	Paint Properties
78	Water Immersion Test	Paint Properties
79	Chemical Resistance Test	Paint Properties
80	Solvent Resistance Test	Paint Properties
81	Acid & Base Resistance Test	Paint Properties