

TEST FACILITIES REQUIRED FOR GRAIN ORIENTED ELECTRICAL STEEL SHEET & STRIP AS PER IS 3024:2006

Sl. No.	IS Clause No.	Requirement	Name of Test Equip/Chem. etc.	Range	L.C
1.	7.1	Chemical(optional)	As per buyer requirement/ arrangement made		
2.	7.4.&15.2	Coating adhesion	Bend tester with bend former radius of 5mm	5 mm mandrel radius	Sec 11, 68.7 of IS 649
3.	7.4.&15.2	Liquid compatibility (optional)	As per buyer requirement in according to 68 of IS 649.		
4.	8.1,8.2 & 15.2,14.4	Core loss Thickness Lab Standard Room Cond. & Sample preparation& conditioning.	Epstein Test Frame Tesla meter Timer Vernier Caliper Frequency meter Flux Volt meter RMS Volt meter Watt meter RMS Ammeter AC Power Ageing oven Micrometer Thermometer, Air conditioner with Heater Sharing machine, Punching m/c, lab stress relieving furnace (non oxidizing) with Temp. indicator Weighing balance	- 0-2.0T 0-12 hrs 0-300mm 40 to100 Hz 0-300 °C 0-10mm 0-50°C - - 0-1000°C 0-1000gm	- 0.001T 5 min. 0.1mm 1Hz 2/5°C 0.01mm 1°C - - 5/10°C 1gm
5.	8.1,8.2 & 14.3,15.4	Single Sheet Tester	As indicated above. (only for domain refined material grades)		
6.	9, 9.1 & 9.2.1	Surface Insulation resistance (Franklin tester)	Test Head Press Pressure Gauge Hot Plate Ammeter Voltmeter Weighing machine Vernier caliper thermometer	0-200°C 0-2kg 0-300mm 0-20 C	1°C 0.1g 0.01mm 1 C
7.	10.1& 15.2	Stacking factor	Compression device/CTM Pressure gauge Vernier caliper/dial gauge Weighing machine Rigid metal plates	0-10kgf/cm2 0-300mm 0-1kg	0.1kgf/cm 2 0.01mm 1g
8.	10.2 & 15.2	Ductility	Bend tester/Thinner brake with apron brake & with hand folder Measuring tape	1000mm wide 0-3000mm	5mm
9.	11.1 , 11.2 8.1	Thickness	Micrometer Long arm digital gauge/x-ray tester	0-25mm 0-25mm	0.01mm 0.01mm

10.	11.2 , 11.3 &15.2	Width Length	Measuring Scale/Vernier Measuring tape	0-1000mm 0-3000mm	0.1mm 1mm	SEC10., 64.2.1, 64.2.2 of IS 649
11.	11.4	Edge Camber	Straight edge Depth gauge/Vernier caliper	1000mm 0-50mm	- 0.1mm	SEC 10, 65.3 of IS 649
12.	11.5 & 12.1	Flatness/Wave factor	Steel scale Taper Gauge Surface plate	0-100mm 3mx1mx250 mm	1mm	SEC10, 65.1 of IS 649
13.	11.6	Burr height	micrometer	0-25mm	0.01mm	SEC10, 64.4 of IS 649
14.	17	Bundle/coil weight	Weigh bridge	0-6T as per buyer requirement		