



## Capabilities by Test

## Method & Description

Test Method	Test Description
ASTM D 149	Dielectric Breakdown Voltage & Strength 固体电绝缘材料在工频下的介电击穿电压和介电强度
ASTM D 229	Test Methods for Rigid Sheet and Plate Materials Used for Electrical Insulation 电绝缘用硬质薄板及板材的标准试验方法
ASTM D 256	Izod Impact Test 悬臂梁冲击试验
ASTM D 257	DC Resistance or conductance of Insulation Materials 绝缘材料的直流电阻或电导率
ASTM D 412	Vulcanized Rubber and Thermoplastic Elastomers—Tension 硫化橡胶和热塑性弹性体--拉伸性能
ASTM D 495	High-Voltage, Low-current, Dry Arc Resistance of Solid Electrical Insulation 固体电气绝缘材料的耐高压小电流电弧性能
ASTM D 570	Water Absorption of Plastics 塑料吸水率
ASTM D 638	Tensile Properties of Plastics 塑料拉伸性能
ASTM D 790	Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials 未加强和加强塑料与电气绝缘材料的弯曲性能
ASTM D 695	Standard Test Method for Compressive Properties of Rigid Plastics 刚性塑料压缩性能试验方法
ASTM D 903	Peel or Stripping Strength of Adhesive Bonds 胶粘剂剥离强度和剥落强度试验方法
ASTM D 1002	Apparent Shear Strength of Single-Lap-Joint Adhesively Bonded Metal Specimens by Tension Loading (Metal-to-Metal) 通过拉力载荷测定单搭接胶着结合的金属试样表面抗剪强度的试验方法(金属对金属)
ASTM D 1622	Apparent Density of Rigid Cellular Plastics 硬质泡沫塑料表面密度测试方法
ASTM D 1830	Thermal Endurance of Flexible Sheet Materials Used for Electrical Insulation by the Curved Electrode Method 用弧形电极法测定电绝缘挠性薄片材料热稳定性的标准试验方法
ASTM D 1876	Peel Resistance of Adhesives (T-Peel Test) 胶粘剂抗剥离性试验方法(T型剥离试验)
ASTM D 2095	Tensile Strength of Adhesives by Means of Bar and Rod Specimens 用棒和条状样品测定胶粘剂抗拉强度
ASTM D 2584	Ignition Loss of Cured Reinforced Resins 固化的增强树脂燃烧损失
ASTM D 3039	Tensile Properties of Polymer Matrix Composite Materials 聚合物基质复合材料拉伸性能
ASTM D 3045	Heat Aging of Plastics without Load 无负荷下塑料的加热老化
ASTM D 3418	Transition Temperatures of Polymers by Differential Scanning Calorimetry 用差示扫描量热法测定聚合物转变温度的标准试验方法
ASTM D 3479	Tension-Tension Fatigue of Polymer Matrix Composite Materials 聚合物基复合材料张力-张力疲劳试验方法

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ASTM D 3638	Comparative Tracking Index of Electrical Insulating Materials 电绝缘材料相比漏电痕指数
ASTM D 3846	In-Plane Shear Strength of Reinforced Plastics 增强塑料平面剪切强度试验方法
ASTM D 3850	Rapid Thermal Degradation of Solid Electrical Insulating Materials by Thermogravimetric Method (TGA) 用热解重量法测定固体电绝缘材料快速热降解的标准试验方法
ASTM D 3874	Ignition of Materials by Hot Wire Sources 热丝源法测定材料的点燃性的标准试验方法
ASTM D 5083	Tensile Properties of Reinforced Thermosetting Plastics Using Straight-Sided Specimens 用直边样品测试增强热固性塑料拉伸性能
ASTM D 5470	Thermal Transmission Properties of Thermally Conductive Electrical Insulation Materials 热导性电绝缘材料热传输特性标准试验方法
ASTM B 193	Resistivity of Electrical Conductor Materials 导电材料电阻率测试
ASTM E 345	Tension Testing of Metallic Foil 金属箔抗拉试验
BELLCORE GR-78-CORE	Surface Insulation Resistance Testing 表面绝缘电阻测试
IEC-60249	Base Materials for Printed Circuits 印制电路用基材
ISO 11358-1	Plastics - Thermogravimetry (TG) of Polymers Part 1: General Principles 塑料-高聚物的热重分析(TG) -第1部分:一般原理
ISO 2409:2013	Paints and varnishes - Cross-cut test 色漆和清漆-划格试验
ISO 527	Tensile Properties of Plastics 塑料拉伸性能
JIS C 5012	Test methods for printed wiring boards 印制线路板试验方法
JIS C 5016	Test Methods for Flexible Printed Circuit Boards 挠性印制线路板试验方法
JIS C 6481	Test methods of copper-clad laminates for printed wiring boards 印刷线路板用覆铜箔板试验方法
IPC-4101	Specification for Base Materials for Rigid Multilayer Boards 刚性多层印制电路板基材规范
IPC-4103	Specification for Base Materials for High Speed/Frequency Application 高速/高频基材应用规范
IPC-4202	Flexible Base Dielectrics for Use in Flexible Printed Circuitry 挠性印制电路用挠性基底介质
IPC-4203	Cover and Bonding Material for Flexible Printed Circuitry 挠性印制电路用覆盖及粘结材料
IPC-4204	Flexible Metal-Clad Dielectrics for Use in ... Flexible Printed Circuitry 用作挠性印制线路的挠性覆金属箔绝缘材料
IPC-6012	Specification for Rigid Printed Boards 刚性印制板的鉴定及性能规范

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IPC-6013	Qualification and Performance Specification for Flexible Printed Boards 挠性印制板的鉴定及性能规范
IPC-6018	Qualification and Performance Specification for High Frequency (Microwave) Printed Board 高频(微波)印制板的鉴定及性能规范
IPC-A-600	Acceptability of Printed Boards 印制板的可接受性
IPC-A-610	Acceptability of Electronic Assemblies 电子组装的可接受性
IPC-5704	Cleanliness Requirements for Unpopulated Printed Boards 印刷板的清洁度要求
IPC-SM-840	Qualification and Performance Specification of Permanent Solder Mask 永久性阻焊剂的鉴定和性能
IPC-TM-650; Method 2.1.1	Microsectioning, Manual and Semi or Automatic 金相切片, 手动及半自动或自动
IPC-TM-650; Method 2.1.2	Pinhole Evaluation, Dye Penetration Method 针孔评定, 干燥渗透法
IPC-TM-650; Method 2.1.3	Plated-Through Hole Structure Evaluation 镀通孔结构评定
IPC-TM-650; Method 2.1.5	Surface Examination, Unclad and Metal-Clad Material 未覆和覆金属材料表面检查
IPC-TM-650; Method 2.1.6	Thickness of Glass Fabric 纤维布厚度
IPC-TM-650; Method 2.1.6.1	Glass Fabric Weight 纤维布重量
IPC-TM-650; Method 2.1.7	Thread Count 织物经纬密度
IPC-TM-650; Method 2.1.8	Workmanship 工艺评定
IPC-TM-650; Method 2.1.9	Surface Scratch Examination Metal-Clad Foil 覆金属箔表面划痕检验
IPC-TM-650; Method 2.1.10	Visual Inspection for Undissolved Dicyandiamide 双氰胺晶体目检
IPC-TM-650; Method 2.1.13	Inspection for Voids in Flexible Printed Board Materials 挠性印制电路材料空洞检验
IPC-TM-650; Method 2.2.1	Mechanical Dimensional Verification 机械尺寸检验
IPC-TM-650; Method 2.2.4	Dimensional Stability, Flexible Dielectric Materials 尺寸稳定性, 挠性绝缘材料
IPC-TM-650; Method 2.2.5	Dimensional Inspections Using Microsections 尺寸检验—金相切片法
IPC-TM-650; Method 2.2.6	Hole Size Measurement, Drilled 钻孔孔径测量



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IPC-TM-650; Method 2.2.7	Hole Size Measurement, Plated 电镀孔径测量
IPC-TM-650; Method 2.2.12	Thickness of Copper by Weight 铜箔厚度,称重法
IPC-TM-650; Method 2.2.12.2	Weight and Thickness of Copper Foils with Releasable Carriers 免搬运铜箔的重量和厚度
IPC-TM-650; Method 2.2.12.3	Weight and Thickness Determination of Copper Foils with Etchable Carriers 腐蚀性运输下铜箔质量和厚度的测定
IPC-TM-650; Method 2.2.18	Determination of Thickness of Laminates by Mechanical Measurement 层压板厚度机械测量法
IPC-TM-650; Method 2.2.18.1	Determination of Thickness of Metallic Clad Laminates, Cross-sectional 覆金属层压板厚度测定—横截面法
IPC-TM-650; Method 2.3.1.1	Chemical Cleaning of Metal Clad Laminate 覆金属层压板化学清洗
IPC-TM-650; Method 2.3.2	Chemical Resistance of Flexible Printed Board Materials 挠性印制电路材料的耐化学性
IPC-TM-650; Method 2.3.4.2	Chemical Resistance of Laminates, Prepreg, and Coated Foil Products, by Solvent Exposure 层压板、半固化片和镀铜箔产品的耐化学性—溶剂暴露
IPC-TM-650; Method 2.3.4.3	Chemical Resistance of Core Materials to Methylene Chloride 芯材耐化学性—耐二氯甲烷
IPC-TM-650; Method 2.3.9	Flammability of Prepreg and Thin Laminate 半固化片和薄层压板的燃烧性
IPC-TM-650; Method 2.3.10	Flammability of Laminate 层压板的燃烧性
IPC-TM-650; Method 2.3.10.1	Flammability of Soldermask on Printed Wiring Laminate 印制电路板用阻焊膜的燃烧性
IPC-TM-650; Method 2.3.15	Purity, Copper Foil or Plating 铜箔纯度
IPC-TM-650; Method 2.3.16	Resin Content of Prepreg, by Burn-off 半固化片的树脂含量—灼烧法
IPC-TM-650; Method 2.3.16.2	Treated Weight of Prepreg 涂胶半固化片的重量
IPC-TM-650; Method 2.3.17	Resin Flow of Prepreg 半固化片的树脂流动度
IPC-TM-650; Method 2.3.17.2	Resin Flow of "No Flow" Prepreg “不流动”半固化片的树脂流动度
IPC-TM-650; Method 2.3.19	Volatile Content of Prepreg 半固化片挥发物含量
IPC-TM-650; Method 2.3.24.2	Porosity of Metallic Coatings on Copper-Based Alloys and Nickel (Nitric Acid Vapor Test) 在铜基合金和镍上金属镀层的孔隙率(硝酸蒸汽试验)
IPC-TM-650; Method 2.3.25	Detection and Measurement of Ionizable Surface Contaminations by Resistivity of Solvent Extract (ROSE) 用萃取溶液电阻率的方法测定表面离子含量(ROSE)
IPC-TM-650; Method 2.3.25.1	Ionic cleanliness testing of bare PWBs 线路板光板离子清洁度测试





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IPC-TM-650; Method 2.3.37	Volatile Content of Adhesive Coated Dielectric Films 介质膜粘结剂挥发物含量
IPC-TM-650; Method 2.3.28	Ionic Analysis of Circuit Boards, Ion Chromatography Method 电路板离子分析, 离子色谱法
IPC-TM-650; Method 2.3.28.2	Bare printed board cleanliness by ion chromatography 离子色谱法线路板光板离子清洁度
IPC-TM-650; Method 2.3.42	Solder Mask - Resistance to Solvents and Cleaning Agents 阻焊膜—耐溶剂及清洗剂
IPC-TM-650; Method 2.4.1	Adhesion, Tape Testing 附着力—胶带法
IPC-TM-650; Method 2.4.1.6	Adhesion, Polymer Coating 聚合物涂层附着力
IPC-TM-650; Method 2.4.3	Flexural Fatigue, Flexible Printed Wiring Materials 挠性印制电路材料的弯曲疲劳测试
IPC-TM-650; Method 2.4.4	Flexural Strength of Laminates (at Ambient Temperature) 层压板弯曲强度(室温下)
IPC-TM-650; Method 2.4.5	Folding Endurance, Flexible Printed Wiring Materials 挠性印制电路材料折弯试验
IPC-TM-650; Method 2.4.6	Hot Oil 热油
IPC-TM-650; Method 2.4.8	Peel Strength of Metallic Clad Laminates 覆金属层压板剥离强度
IPC-TM-650; Method 2.4.8.3	Peel Strength of Metallic Clad Laminates at Elevated Temperature (Hot Air Method) 覆金属层压板在评估温度下剥离强度 (热空气法)
IPC-TM-650; Method 2.4.9	Peel Strength of Flexible Circuits 挠性印制电路材料剥离强度
IPC-TM-650; Method 2.4.9.1	Peel Strength of Flexible Circuits 挠性电路剥离强度
IPC-TM-650; Method 2.4.12	Solderability, Edge Dip Method 可焊性—边浸法
IPC-TM-650; Method 2.4.13	Solder Float Resistance Flexible Printed Wiring Materials 挠性印制电路材料耐浮焊性
IPC-TM-650; Method 2.4.13.1	Thermal Stress of Laminates 层压板热应力试验
IPC-TM-650; Method 2.4.16	Initiation Tear Strength, Flexible Insulating Materials 挠性绝缘材料初始撕裂强度
IPC-TM-650; Method 2.4.18	Tensile Strength and Elongation, Copper Foil 铜箔的拉伸强度和延伸率
IPC-TM-650; Method 2.4.18.1	Tensile Strength and Elongation, In-house Plating 电镀铜箔拉伸强度和延伸率
IPC-TM-650; Method 2.4.19	Tensile Strength and Elongation, Flexible Printed Wiring Materials 挠性印制电路拉伸强度和延伸率
IPC-TM-650; Method 2.4.21	Land Bond Strength, Unsupported Component Hole 非支撑元件孔焊盘粘合强度
IPC-TM-650; Method 2.4.22	Bow and Twist (Percentage) 弓曲和扭曲(百分率)

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IPC-TM-650; Method 2.4.22.1	Bow and Twist - Laminate 层压板的弓曲和扭曲
IPC-TM-650; Method 2.4.24	Glass Transition Temperature and Z-Axis Thermal Expansion by TMA 玻璃化温度及 Z 轴膨胀系数—TMA 法
IPC-TM-650; Method 2.4.24.1	Time to Delamination (TMA Method) 分层时间—TMA 法
IPC-TM-650; Method 2.4.24.2	Glass Transition Temperature of Organic Films - DMA Method 有机薄膜的玻璃化转变温度- DMA 法
IPC-TM-650; Method 2.4.24.3	Glass Transition Temperature of Organic Films - TMA Method 有机薄膜玻璃化温度—TMA 法
IPC-TM-650; Method 2.4.24.5	Glass Transition Temperature and Thermal Expansion of Materials Used in High Density Interconnection (HDI) and Microvias - TMA Method 用于 HDI 和微孔材料的玻璃化温度和热膨胀系数—TMA 法
IPC-TM-650; Method 2.4.24.6	Decomposition Temperature (Td) of Laminate Material Using TGA 层压板材料热分解温度(TGA 法)
IPC-TM-650; Method 2.4.25	Differential Scanning Calorimetry (DSC) 差示量热扫描—DSC 法
IPC-TM-650; Method 2.4.27.1	Abrasion (Taber Method) Solder Mask and Conformal Coating 阻焊膜及保形涂层耐摩擦试验 (泰伯尔方法)
IPC-TM-650; Method 2.4.28.1	Solder Mask Adhesion - Tape Test Method 阻焊膜附着力—胶带法
IPC-TM-650; Method 2.4.29	Adhesion, Solder Mask, Flexible Circuit 挠性电路阻焊膜附着力
IPC-TM-650; Method 2.4.36	Rework Simulation, Plated-through Holes for Leaded Components 模拟返工—含铅元件金属化孔
IPC-TM-650; Method 2.4.38	Scaled Flow of Prepreg 半固化片比例流动度试验
IPC-TM-650; Method 2.4.39	Dimensional Stability, Glass Reinforced Thin Laminates 玻璃纤维增强薄层压板尺寸稳定性
IPC-TM-650; Method 2.4.40	Inner Layer Bond Strength of Multilayer Printed Circuit Boards 多层印制线路板内层粘合强度
IPC-TM-650; Method 2.5.1	Arc Resistance of Printed Wiring Material 印制电路材料的耐电弧
IPC-TM-650; Method 2.5.3	Current Breakdown, Plated Through-Holes 镀通孔的耐电流
IPC-TM-650; Method 2.5.5.5	Stripline Test for Permittivity and Loss Tangent (Dielectric Constant and Dissipation Factor) at X-Band X 波段下带状线测试介电常数和介质损耗角正切
IPC-TM-650; Method 2.5.5.7	Characteristic Impedance Lines on Printed Boards by TDR 印制板特性阻抗 TDR 法
IPC-TM-650; Method 2.5.5.9	Permittivity and Loss Tangent, Parallel Plate, 1MHz to 1.5 GHz 介电常数和介质损耗角正切, 平行板法, 1MHz~1.5 GHz
IPC-TM-650; Method 2.5.5.15	Test Method for the Determination of Dk and Df by Split Post Dielectric Resonator (SPDR) 用分裂柱式介质谐振器(SPDR)测定介电常数和损耗角正切的试验方法
IPC-TM-650; Method 2.5.6	Dielectric Breakdown 刚性印制电路材料的介质击穿

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IPC-TM-650; Method 2.5.6.1	Solder Mask - Dielectric Strength 阻焊膜—击穿强度
IPC-TM-650; Method 2.5.6.2	Electric Strength of Printed Wiring Material 印制电路材料的电气强度
IPC-TM-650; Method 2.5.7	Dielectric Withstanding Voltage, PWB 印制板介质耐电压
IPC-TM-650; Method 2.5.7.1	Dielectric Withstanding Voltage - Polymeric Conformal Coating 介质耐电压—聚合保护涂层
IPC-TM-650; Method 2.5.12	Interconnection Resistance, Multilayer Printed Wiring 多层印制板互连电阻
IPC-TM-650; Method 2.5.13	Resistance of Copper Foil 铜箔电阻
IPC-TM-650; Method 2.5.14	Resistivity of Copper Foil 铜箔电阻率
IPC-TM-650; Method 2.5.17	Volume Resistivity and Surface Resistance of Printed Wiring Materials 印制线路材料的体积电阻率和表面电阻
IPC-TM-650; Method 2.5.17.1	Volume and Surface Resistivity of Dielectric Materials 介质材料体积电阻率和表面电阻率
IPC-TM-650; Method 2.5.17.2	Volume Resistivity of Conductive Materials Used in High Density Interconnection (HDI) and Microvias, Two-wire Method HDI 和微孔板用传导材料的体积电阻率—双导线法
IPC-TM-650; Method 2.5.27	Surface Insulation Resistance of Raw Printed Wiring Board Material 半成品印制电路材料的表面绝缘电阻
IPC-TM-650; Method 2.6.2	Moisture Absorption, Flexible Printed Wiring 挠性印制电路吸湿性试验
IPC-TM-650; Method 2.6.2.1	Water Absorption, Metal Clad Plastic Laminates 覆金属塑料层压板吸水性
IPC-TM-650; Method 2.6.3	Moisture and Insulation Resistance, Printed Boards 印制板潮湿绝缘电阻
IPC-TM-650; Method 2.6.3.1	Solder Mask - Moisture and Insulation Resistance 阻焊膜潮湿绝缘电阻
IPC-TM-650; Method 2.6.3.2	Insulation and Moisture Resistance, Flexible Base Dielectric 挠性绝缘基材潮湿绝缘电阻
IPC-TM-650; Method 2.6.3.3	Surface Insulation Resistance, Fluxes 表面绝缘电阻, 助焊剂
IPC-TM-650; Method 2.6.3.4	Moisture and Insulation Resistance - Conformal Coating 潮湿绝缘电阻—敷形涂层
IPC-TM-650; Method 2.6.3.5	Bare Board Cleanliness by Surface Insulation Resistance 表面绝缘电阻 (裸板清洁度)
IPC-TM-650; Method 2.6.3.6	Surface Insulation Resistance - Fluxes - Telecommunications 表面绝缘电阻—助焊剂—通讯产品
IPC-TM-650; Method 2.6.3.7	Surface Insulation Resistance 表面绝缘电阻
IPC-TM-650; Method 2.6.6	Temperature Cycling, Printed Wiring Board 印制电路板的温度循环
IPC-TM-650; Method 2.6.7	Thermal Shock and Continuity, Printed Board 印制板的热冲击和连续性

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## Method & Description

Test Method	Test Description
IPC-TM-650; Method 2.6.7.1	Thermal Shock - Conformal Coating 热冲击—敷形涂层
IPC-TM-650; Method 2.6.7.2	Thermal Shock, Continuity and Microsection, Printed Board 印制板的热冲击、连续性和金相切片
IPC-TM-650; Method 2.6.7.3	Thermal Shock - Solder Mask 阻焊膜耐热冲击
IPC-TM-650; Method 2.6.8	Thermal Stress, Plated Through-Holes 镀通孔的热应力试验
IPC-TM-650; Method 2.6.8.1	Thermal Stress, Laminate 层压板的热应力试验
IPC-TM-650; Method 2.6.11	Solder Mask - Hydrolytic Stability 阻焊膜的水解稳定性
IPC-TM-650; Method 2.6.11.1	Hydrolytic Stability - Conformal Coating 敷形涂层的水解稳定性
IPC-TM-650; Method 2.6.14	Solder Mask - Resistance to Electrochemical Migration 阻焊膜耐电化学迁移
IPC-TM-650; Method 2.6.14.1	Electrochemical Migration Resistance Test 电化学迁移试验
IPC-TM-650; Method 2.6.16	Pressure Vessel Method for Glass Epoxy Laminate Integrity 环氧玻璃布层压板完整性——压力容器法
IPC-TM-650; Method 2.6.18	Low Temperature Flexibility, Flexible Printed Wiring Materials 挠性印制材料低温曲挠
IPC-TM-650; Method 2.6.21	Service Temperature of Metal-Clad Flexible Laminate, Cover Material and Adhesive Bonding Films 覆金属挠性层压板，覆盖材料及粘结薄膜工作温度
IPC-TM-650; Method 2.6.25	Conductive Anodic Filament (CAF) Resistance Test: X-Y Axis 导电阳极丝 (CAF) : X-Y 轴
IPC-TM-650; Method 2.6.26	DC Current Induced Thermal Cycling Test 直流感应热循环试验
IPC-TM-650; Method 2.6.27	Thermal Stress, Convection Reflow Assembly Simulation 热应力，模拟组装回流焊
IPC-TM-650; Method 2.6.28	Moisture Content and/or Moisture Absorption Rate, (Bulk) Printed Board 印制板含水量和/或吸湿率
IPC J-STD-001	Space Applications Electronic Hardware Addendum to Requirements for Soldered Electrical and Electronic Assemblies. 焊接的电气和电子组件要求
IPC J-STD-002	Solderability Test for Component Leads, Terminations, Lugs, Terminals and Wires 元器件引线，端子，焊片，接线柱和导线的可焊性测试
IPC J-STD-003	Solderability Tests for Printed Boards 印制板可焊性试验
UL 94	Tests for Flammability of Plastic Materials for Parts in Devices and Appliances 用于设备和电气零件的塑料材料的可燃性测试
UL 746A	Polymeric Materials - Short Term Property Evaluations 聚合物材料——短时性能评定





## Capabilities by Test

## Method & Description

Test Method	Test Description
UL 746E	Polymeric Materials - Industrial Laminates, Filament Wound Tubing, Vulcanized Fibre, and Materials Used in Printed-wiring Boards 聚合材料-工业用层压板、纤维缠绕管、硬化纸板及印制线路板用材料
UL 796	Printed Circuit Boards 印制电路板
UL 796F	Flexible Materials Interconnect Constructions 挠性材料互连结构
GB/T 4588.1	Sectional Specification: Single and Double Sided Printed Boards with Plain Holes 无金属化孔单双面印制板分规范
GB/T 4588.2	Sectional Specification: Single and Double Sided Printed Boards with Plated-through Holes 有金属化孔单双面印制板分规范
GB/T4588.4	Sectional Specification - Multilayer Printed Boards 多层印制板分规范
GB/T4588.10	Printed Boards - Part 10: Specification for Flex-rigid Double-sided Printed Boards with Through Connections 印制板 第 10 部分:有贯穿连接的刚挠双面印制板规范
GB/T 4588.12	Specification for Mass Lamination Panels (Semi-manufactured Multilayer Printed Boards) 预制内层层压板规范 (半制成多层印制板)
GB/T 4677	Test Methods for Printed Boards 印制板测试方法
GJB 362	General Specification for Rigid PCB 刚性印制板总规范
SJ 20604	General Specification for Printed-wiring, Flexible and Rigid-flex 挠性和刚挠印制板总规范
SJ 3275	Safety Requirements for One-sided Printed Circuit Boards Made of Paper 单面纸质印制线路板的安全要求
SJ/T 11171	Specification for Single and Double Sided Carbon-coated Printed Boards without Interlayer Connection 无金属化孔单双面碳膜印制板规范
GB/T 4722	Test method for rigid copper clad laminates for printed circuits board 印制电路用刚性覆铜箔层压板试验方法
GB/T 4723	Phenolic cellulose paper copper clad laminated sheets for printed circuit 印制电路用覆铜箔酚醛纸层压板
GB/T 4724	Composite base copper clad laminated sheets for printed circuit 印制电路用覆铜箔复合基层压板
GB/T 4725	Epoxide woven glass fabric copper-clad laminated sheets for printed circuits 印制电路用覆铜箔环氧玻璃布层压板
GJB 1651	Test Methods for Metal-clad Laminated Sheets for Printed Circuit 印制电路用覆金属箔层压板试验方法
GB/T 13555	Flexible Copper-clad Polyimide Film for Printed Circuits 印制电路用挠性覆铜箔聚酰亚胺薄膜
GB/T 13556	Flexible Copper-clad Polyester Film for Printed Circuits 印制电路用挠性覆铜箔聚脂薄膜



## Capabilities by Test

## Method & Description

### Test Method

### Test Description

GB/T 13557	Test Methods for Flexible Copper-clad Material for Printed Circuits 印制电路用挠性覆铜箔材料试验方法
GB/T 12629/IEC 249-2-12	Thin Epoxide Woven Glass Fabric Copper-clad Laminated Sheet of Defined Flammability, for Use in the Fabrication of Multilayer Printed Boards 限定燃烧性的薄覆铜箔环氧玻璃布层压板（制造多层印制板用）
GB/T 12630/IEC 249-2-11	Thin Epoxide Woven Glass Fabric Copper-clad Laminated Sheet, General Purpose Grade, for Use in the Fabrication of Multilayer Printed Boards 一般用途的薄覆铜箔环氧玻璃布层压板（制造多层印制板用）
GB/T 16315	Polyimide Woven Glass Fabric Copper-clad Laminated Sheet of Defined Flammability for Printed Circuits 印制电路用限定燃烧性的覆铜箔聚酰亚胺玻璃布层压板
GB/T 16317	Thin Polyimide Woven Glass Fabric Copper-clad Laminated Sheet of Defined Flammability for Use in the Fabrication of Multilayer Printed Boards 多层印制电路用限定燃烧性的薄覆铜箔聚酰亚胺玻璃布层压板
GB/T 12629/IEC 249-2-12	Thin Epoxide Woven Glass Fabric Copper-clad Laminated Sheet of Defined Flammability, for Use in the Fabrication of Multilayer Printed Boards 限定燃烧性的薄覆铜箔环氧玻璃布层压板（制造多层印制板用）
GB/T 1303.2/IEC 60893-2	Industrial Rigid Laminated Sheets Based on Thermosetting for Electrical Purposes - Part 2: Test Methods 电气用热固性树脂工业硬质层压板 第2部分:试验方法
GJB 2142A	General Specification for Metal-clad Laminated Sheets for Printed Wiring Boards 印制线路板用覆金属箔层压板通用规范
GJB 2142/1	Sheet, Laminate, Base Material, Glass Base Woven, Majority Polyfunctional Epoxy Resin, Hot Strength Retention, Flame Resistant, Copper-clad Detail Specification for 耐热阻燃型覆铜箔环氧玻璃布层压板详细规范
GB/T 14708	Adhesive Coated Polyester Film for Flexible Printed Circuits 挠性印制电路用涂胶聚酯薄膜
GB/T 14709	Adhesive Coated Polyimide Film for Flexible Printed Circuits 挠性印制电路用涂胶聚酰亚胺薄膜
GB/T 9341/ISO 178	Plastics – Determination of Flexural Properties 塑料弯曲性能的测定
GB/T1034/ISO 62	Plastics – Determination of Water Absorption 塑料吸水性的测定
GB/T 10064	Methods of Test for the Determination of the Insulation Resistance of Solid Insulating Materials 测定固体绝缘材料绝缘电阻的试验方法
GB/T 4207/IEC 60112	Method for the Determination of the Proof and the Comparative Tracking Indices of Solid Insulating Materials 固体绝缘材料耐电痕化指数和相比电痕化指数的测定方法
GB/T 16317	Thin Polyimide Woven Glass Fabric Copper-clad Laminated Sheet of Defined Flammability for Use in the Fabrication of Multilayer Printed Boards 多层印制电路用限定燃烧性的薄覆铜箔聚酰亚胺玻璃布层压板
GB/T 14515	Specification for Single and Double Sided Flexible Printed Boards with Through Connections 有贯穿连接的单、双面挠性印制板技术条件



## Capabilities by Test

## Method & Description

### Test Method

### Test Description

GB/T 14516	Specification for Single and Double Sided Flexible Printed Boards Without Through Connections 无贯穿连接的单、双面挠性印制板技术条件
GB/T 18334/IEC 60326-9	Specification for Flexible Multilayer Printed Boards with Through Connections 有贯穿连接的挠性多层印制板规范
GB/T 18335/IEC 60326-1	Specification for Flex-rigid Multilayer Printed Boards with Through Connections 有贯穿连接的刚挠多层印制板分规范
GB/T 17359/ISO 22309	Microbeam Analysis - Quantitative Analysis Using Energy Dispersive Spectrometry 微束分析 能谱法定量分析
GB/T 2423.1/IEC 60068-2-1	Environmental Testing for Electric and Electronic Products - Part 2: Test Methods - Tests A: Cold 电工电子产品环境试验第 2 部分:试验方法试验 A:低温
GB/T 2423.2/IEC 60068-2-2	Environmental Testing for Electric and Electronic Products - Part 2: Test Methods - Tests A: Dry Heat 电工电子产品环境试验第 2 部分:试验方法试验 A:高温
GB/T2423.3/IEC 60068-2-78	Environmental Testing For Electric and Electronic Products - Part 2: Test Methods - Tests Cab: Damp Heat, Steady State 电工电子产品环境试验第 2 部分:试验方法 试验 Cab:恒定湿热试验
GB/T2423.4/IEC 60068-2-30	Environmental Testing for Electric and Electronic Products - Part 2: Test Methods - Tests Db: Damp Heat, Cyclic (12h+12h Cycle) 电工电子产品环境试验第 2 部分:试验方法 试验 Db:交变湿热 (12h+12h 循环)
GB/T2423.17/IEC 60068-2-11	Environmental Testing for Electric and Electronic Products - Part 2: Test Methods - Test Ka: Salt Mist 电工电子产品环境试验 第 2 部分: 试验方法 试验 Ka: 盐雾
GB/T2423.18/IEC 60068-2-52	Environmental Testing for Electric and Electronic Products - Part 2: Test Methods - Test Kb: Salt Mist, Cyclic (Sodium chloride solution) 电工电子产品环境试验 第 2 部分: 试验方法 试验 Kb: 盐雾, 交变 (氯化钠溶液)
GB/T2423.22/IEC 60068-2-14	Environmental Testing - Part 2: Test Methods - Test N: Change of Temperature 环境试验 第 2 部分: 试验方法 试验 N: 温度变化
GB/T2423.28/IEC 60068-2-20	Environmental Testing for Electric and Electronic Products - Part 2: Test Methods - Test T: Soldering 电工电子产品环境试验第 2 部分: 试验方法 试验 T: 锡焊
GB/T 8332/ISO 9772	Test Method for Flammability of Cellular Plastics - Horizontal Burning Method 泡沫塑料燃烧性能试验方法 水平燃烧法
GB/T 5230	Electrodeposited Copper Foil 电解铜箔
GB/T 19466.1/ISO 11357-1	Plastics - Differential Scanning Calorimetry (DSC) - Part 1: General Principles 塑料 差示扫描量热法 (DSC) 第 1 部分: 通则
GB/T 19466.2/ISO 11357-2	Plastics - Differential Scanning Calorimetry (DSC) - Part 22: Determination of Glass Transition Temperature 塑料 差示扫描量热法 (DSC) 第 2 部分: 玻璃化转变温度的测定
GB/T 19466.3/ISO 11357-3	Plastics - Differential Scanning Calorimetry (DSC) - Part 3: Determination of Temperature and Enthalpy of Melting and Crystallization 塑料 差示扫描量热法 (DSC) 第 3 部分: 熔融和结晶温度及热焓的测定

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## Capabilities by Test

## Method & Description

### Test Method

### Test Description

GB/T 9345.1/ISO 3451-1	Plastics - Determination of Ash - Part 1: General Methods 塑料 灰分的测定 第 1 部分:通用方法
GB/T 6040	General Method of Infrared Spectrum Analysis 红外光谱分析方法通则
GB/T 5169.5/IEC 60695-11-5	Fire Hazard Testing for Electric and Electronic Products - Part 5: Test Flames - Needle Test Method - Apparatus Confirmatory Arrangement and Guidance 电工电子产品着火危险试验 第 5 部分:试验火焰 针焰试验方法 装置、确认试验方法和导则
GB/T 5169.11/ IEC 60695-2-11	Fire Hazard Testing for Electric and Electronic Products - Part 11: Glowing/Hot-wire Based Test Methods - Glow-wire Flammability Test Method for End-Products 电工电子产品着火危险试验 第 11 部分:灼热丝/热丝基本试验方法 成品的灼热丝可燃性试验方法
GB/T 5169.12/ IEC 60695-2-12	Fire Hazard Testing for Electric and Electronic Products - Part 12: Glowing/Hot-wire Based Test Methods - Glow-wire Flammability Test Method for Materials 电工电子产品着火危险试验 第 12 部分:灼热丝/热丝基本试验方法 材料的灼热丝可燃性试验方法
GB/T 5169.13/ IEC 60695-2-13	Fire Hazard Testing for Electric and Electronic Products - Part 13: Glowing/Hot-wire Based Test Methods - Glow-wire Ignition Temperature (GWIT) Test Method for Materials 电工电子产品着火危险试验 第 13 部分:灼热丝/热丝基本试验方法 材料的灼热丝起燃性试验方法
GB/T 5169.16/ IEC 60695-11-10	Fire Hazard Testing for Electric and Electronic Products - Part 16: Test Flames - 50W Horizontal and Vertical Flame Test Methods 电工电子产品着火危险试验 第 16 部分:试验火焰 50W 水平与垂直火焰试验方法
GB/T 5169.17/ IEC 60695-11-20	Fire Hazard Testing for Electric and Electronic Products - Part 17: Test Flames - 500W Flame Test Methods 电工电子产品着火危险试验 第 17 部分:试验火焰 500W 火焰试验方法
GB/T 5169.21/ IEC60695-10-2	Fire Hazard Testing for Electric and Electronic Products - Part 21: Abnormal Heat - Ball Pressure Test 电工电子产品着火危险试验 第 21 部分:非正常热 球压试验
GB/T 1040.1/ISO 527-1	Plastics-Determination of Tensile Properties - Part 1: General Principles 塑料 拉伸性能的测定 第 1 部分: 总则
GB/T 1040.2/ISO 527-2	Plastics-Determination of Tensile Properties - Part 2: Test Conditions for Moulding and Extrusion Plastics 塑料 拉伸性能的测定 第 2 部分: 模塑和挤塑塑料的试验条件
GB/T 1040.3/ISO 527-3	Plastics-Determination of Tensile Properties - Part 3: Test Conditions for Films and Sheets 塑料 拉伸性能的测定 第 3 部分: 薄膜和薄片的试验条件
GB/T 1040.4/ISO 527-4	Plastics-Determination of Tensile Properties-Part 4: Test Conditions for Isotropic and Orthotropic Fibre-reinforced Plastic Composites 塑料 拉伸性能的测定 第 4 部分: 各向同性和正交各向异性纤维增强复合材料的试验条件
GB/T 1040.5/ISO 527-5	Plastics-Determination of Tensile Properties-Part 5: Test Conditions for Unidirectional Fibre-reinforced Plastic Composites 塑料 拉伸性能的测定 第 5 部分: 单向纤维增强复合材料的试验条件

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## Capabilities by Test

## Method & Description

Test Method	Test Description
GB/T 1043.1/ISO 179-1	Plastics-Determination of Charpy Impact Properties - Part 1: Non-instrumented Impact Test 塑料 简支梁冲击性能的测定 第1部分: 非仪器化冲击试验
GB/T 1843/ISO 180	Plastics-Determination of Izod Impact Strength 塑料 悬臂梁冲击强度的测定
GB/T 1408.1/IEC 60243-1	Electrical Strength of Insulating Materials - Test Methods - Part 1: Tests at Power Frequencies 绝缘材料电气强度试验方法 第1部分: 工频下试验
GB/T 1410/IEC 60093	Methods of Test for Volume Resistivity and Surface Resistivity of Solid Insulating Materials 固体绝缘材料体积电阻率和表面电阻率试验方法
GB/T 1033.1/ISO 1183-1	Plastics - Methods for Determining the Density of Non-Cellular Plastics - Part 1: Immersion Method, Liquid Pycnometer Method and Titration Method 塑料 非泡沫塑料密度的测定 第1部分: 浸渍法、液体比重瓶法和滴定法
GB/T 1034/ISO 62	Plastics - Determination of Water Absorption 塑料吸水性的测定
GB/T 8813/ISO 844	Rigid Cellular Plastics - Determination of Compression Properties 硬质泡沫塑料 压缩性能的测定
GB/T 1041/ISO 604	Plastics - Determination of Compressive Properties 塑料压缩性能的测定
GB/T 8811/ISO 2796	Rigid Cellular Plastics - Test Method for Dimensional Stability 硬质泡沫塑料 尺寸稳定性试验方法
GB/T 2408/ IEC 60695-11-10	Plastics - Determination of Burning Characteristics - Horizontal and Vertical Test 塑料 燃烧性能的测定 水平法和垂直法
GB/T 1462	Test Methods for Water Absorption of Fiber Reinforced Plastics 纤维增强塑料吸水性试验方法
GB/T 12027/ISO 115	Plastics - Film and Sheeting - Determination of Dimensional Change on Heating 塑料 薄膜和薄片 加热尺寸变化率试验方法
GB/T 31988	Aluminium base copper clad laminate for printed circuits 印制电路用铝基覆铜箔层压板
GB/T 33047.1	Plastics-Thermogravimetry (TG) of polymers-Part1: General principles 塑料 聚合物热重法(TG) 第1部分: 通则
GB/T 12636	Stripline test method for complex permittivity of microwave dielectric substrates 微波介质基片复介电常数带状线 测试方法
IEC-61189-2-721	Test methods for electrical materials, printed boards and other interconnection structures and assemblies-Part 2-721: Test methods for materials for interconnection structures-Measurement of relative permittivity and loss tangent for copper clad laminate at microwave frequency using split post dielectric resonator 电气材料, 印制板和其他互连结构和组合装置的试验方法. 第2-721部分: 互连结构材料试验方法. 采用分离介质谐振器在微波频率下测量覆铜层压板的相对介电常数和损耗角正切
GB/T 1409	Recommended methods for the determination of the permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and radio frequencies including meter wavelengths 测量电气绝缘材料在工频、音频、高频(包括米波波长在内)下电容率和介质损耗因数的推荐方法

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## Capabilities by Test

## Method & Description

### Test Method

### Test Description

GB/T 29847

Test methods for copper foil used for printed board  
印制板用铜箔试验方法

GB/T 5169.10/  
IEC 60695-2-10

Fire hazard testing for electric and electronic products-Part 10: Glowing/hot-wire based test methods-Glow-wire apparatus and common test procedure  
电工电子产品着火危险试验 第 10 部分: 灼热丝/热丝基本试验方法 灼热丝装置和通用试验方法

GB/T 1303.4/IEC 60893-3-2

Industrial rigid laminated sheets based on thermosetting resins for electrical purposes--Part 4:Requirements for rigid laminated sheets based on epoxy resins

电气用热固性树脂工业硬质层压板 第 4 部分:环氧树脂硬质层压板

ASTM D 882

Standard Test Method for Tensile Properties of Thin Plastic Sheeting  
塑料薄板抗拉特性试验方法