



Leading Manufacturer of
ELECTRICAL INSULATION MATERIALS

九江鑫星绝缘材料有限公司
JIUJIANG XINXING INSULATION MATERIAL CO.,LTD

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3240 ,G-10,G-11,FR-4,FR-5,EPGC308,ESD G10/FR4,EPGM SERIES,UPGM SERIES

TECHNICAL DATA SHEET NEMA G-5 /MFGC201

Item:	NEMA G-5 Glass Epoxy Laminate		
Description:	NEMA Grade G-5 materials are electrical alkali free fiberglass reinforced laminates,bonded with melamine resin.It has good arc resistance and certain dielectric properties and flame retardant properties.		
Standards:	NEMA LI-1 Grade G5 • IEC60893:MFGC201(sheet) • GB/T 1303.2.2009:3233		
Application:	It can be used as arc resistance materials in switches, structural parts of electrical equipment and isolation materials for electrical equipment.		
Availability:	Laminate Sheets:	Thickness	English Units(in) 0.008"-2.75" SI unites(mm/cm) 0.2-70(mm)
		Sheet Size	40" x 48" 102cm x 122cm
			48" x 80" 122cm x 204cm
	Fabricated parts:	Xinxing Insulation custom fabricates insulation materials to the exact specifications and drawings of our customers	

TYPICAL PROPERTIES OF G5/MFGC201 SHEET

Key Characteristic	Units	IEC Requirement	Typical Values	Test Methods
PHYSICAL				
Standard color	--	--	White,brown ¹	
Density	g/cm ³	1.8-2.0	1.8-2.0 ²	IEC60893-2
Water Absorption,24 hrs 2mm	mg	155 max	132	IEC60893-2
MECHANICAL				
Flexural strength perpendicular to laminations (MD)	MPa	240 min	290	IEC60893-2
Charpy impact strength parallel to laminations (Notched)	kJ/m ²	30 min	33	IEC60893-2
Tensile strength(MD)	MPa	150 min	260	IEC60893-2
THERMAL				
Temperature Index	°C	130	130	-
Flammability	Class	V-0	V-0	UL-94
ELECTRICAL				
Electric strength perpendicular to laminations (at 90°C ±2°C in oil), 1mm in thickness	kV/mm	7.0 min	8.5	IEC60893-2
Breakdown voltage parallel to laminations(at 90°C ±2°C in oil)	kV	15 min	19	IEC60893-2

ISO9001 Certified QMA /Third Party Test Report/ RoHS Compliant / Reach Compliant
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Insulation resistance(after 24h immersion in water)	M Ω	1x10 ² min	4.5x10 ³	IEC60893-2
Relative Permittivity(50Hz)	--	7.5 max	6.97	IEC60893-2
Dielectric dissipation(50Hz)	--	0.02 max	0.018	IEC60893-2
Arc resistance	s	180 min	183	IEC60893-2
Comparative tracking index	--	500 min	CTI 600 ³	IEC60893-2

¹Custom colors available upon request

²The density of our pure epoxy fiberglass laminate sheet is about 1.9g/cm³,Custom formula available upon request

³The higher the CTI value, the better the electrical insulation performance of the material and the stronger the ability to resist electrical corrosion. That means the material is less likely to catch fire when it encounters an electric spark. Because electric appliances in the operation process, the circuit control system is easy to encounter electrical sparks, if the use of high CTI material, you can effectively avoid the fire caused by electrical sparks. In the design and manufacture of electrical equipment, the CTI value is an important indicator that can be used to evaluate the safety and reliability of materials to ensure that the equipment will not present electrical faults or hazards when used.

The above values are for reference only and are taken from the average test results, and do not represent complete consistency with the actual performance of the material.