



Leading Manufacturer of
ELECTRICAL INSULATION MATERIALS

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

Email: sales1@xx-insulation.com
Tel: 86-792-8590828 86-15170255117



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

TECHNICAL DATA SHEET EPGC205/G11R

Item:	G11R/EPGC205,Roving Reinforced G11, Glass Epoxy Laminate			
Description:	Roving reinforced G11 material are continuous filament woven fiberglass sheets bonded with high temperature epoxy resin. EPGC205/G11R is similar to type EPGC203/G11, but with roving cloth. The material has the ability to maintain excellent mechanical, electrical and physical properties at elevated temperature to 155°C.			
Standards:	NEMA LI-1 Grade G11R • IEC60893:EPGC205(sheet) • GB/T 1303.2.2009			
Application:	Mostly used in electrical machines and equipments as slot-wedges, fillers, cover plates, nut insulation, inter mediates, distances, etc.			
Availability:	Laminate Sheets:	Thickness	English Units(in) 0.008"-4.0"	SI unites(mm/cm) 0.2-101.6(mm)
		Sheet Size	40" x 48"	102cm x 122cm
			48" x 80"	122cm x 204cm
	48" x 96"		122cm x 244cm	
Fabricated parts:	Xinxing Insulation custom fabricates insulation materials to the exact specifications and drawings of our customers			

TYPICAL PROPERTIES OF G11R/EPGC205 SHEET

Key Characteristic	Units	IEC Requirement	Typical Values	Test Methods
PHYSICAL				
Standard color	--	--	Natural Green ¹	
Density	g/cm ³	1.8-2.0	1.99 ²	IEC60893-2:2003
Water Absorption,24 hrs 3mm	mg	22 max	17	IEC60893-2:2003
MECHANICAL				
Flexural strength perpendicular to laminations (under normal condition)	MPa	340 min	519	IEC60893-2:2003
Flexural strength perpendicular to laminations (under 150±5°C)	MPa	170 min	331	IEC60893-2:2003
Flexural modulus perpendicular to laminations(under normal condition)	MPa	--	3.2x10 ⁴	IEC60893-2:2003
Flexural modulus perpendicular to laminations(under 150±5°C)	MPa	--	3.0x10 ⁴	IEC60893-2:2003
Charpy impact strength parallel to laminations (Notched)	kJ/m ²	70 min	170	IEC60893-2:2003
Tensile strength(MD)	MPa	300 min	530	IEC60893-2:2003

ISO9001 Certified QMA /Third Party Test Report/ RoHS Compliant / Reach Compliant
www.xx-insulation.com



Leading Manufacturer of
ELECTRICAL INSULATION MATERIALS

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

Email: sales1@xx-insulation.com
Tel: 86-792-8590828 86-15170255117



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

THERMAL

Temperature Index	°C	155	155	-
Flammability	Class	HB	HB	UL-94

ELECTRICAL

Electric strength perpendicular to laminations (at 90°C ±2°C in oil), 3mm in thickness	kV/mm	9min	20	IEC60893-2:2003
Breakdown voltage parallel to laminations(at 90°C ±2°C in oil)	kV	45 min	50 min	IEC60893-2:2003
Insulation resistance(after 24h immersion in water)	M Ω	1x10 ⁴ min	3.8x10 ⁵	IEC60893-2:2003
Comparative tracking index	--	200 min	CTI 600 ³	IEC60893-2:2003

¹Custom colors available upon request

²The density of our pure epoxy fiberglass laminate sheet is about 1.99g/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.