

Technical Data Sheet



EP GC 202 (HGW 2372.1 / FR-4)

Carrier: Glass filament fabric / Matrix: Modified epoxy resin

General properties	Test method	Norm	Guideline value
Bulk density	g / cm ³	(1,7 - 1,9)	1,7-1,9
Water absorption at 3mm thickness	mg	22	10
Flammability	Stage	FV0	FV0
Mechanical properties			
Flexural strength at 23 °C	MPa	340	350-560
Impact strength	kJ/m ²	-	100
Notched impact strength (Charpy) parallel to the layer direction	kJ/m ²	33	50-80
Tensile strength	MPa	(300)	300-430
Compressive strength parallel to the layer direction	MPa	-	200
Compressive strength perpendicular to the layer direction	MPa	(350)	350-520
Splitting force	N	-	3000
Modulus of elasticity bending test	MPa	(24000)	18000-24000
Shear strength parallel to the layer direction	MPa	(30)	55
Thermal properties			
Thermal conductivity	W / (m * K)	-	0,3
Coefficient of linear expansion	10 ⁻⁶ /K	-	10-20
Limit temperature	°C	(120)	130/180*
Limit value determination of the limit temperature due to the bending strength	MPa	-	175
Heat class		-	E
Glow resistance	Stufe	-	2a
Electrical properties			
Insulation resistance	MΩ	5*10 ⁴	5*10 ⁴ - 27*10 ⁶
Dielectric constant	---	---	5
Dissipation factor at 48-62 Hz	max.	-	0,05
Dissipation factor at 1 MHz	max.	0,04	0,04
Permittivity at 48-62 Hz	max.	5,5	55
Permittivity at 1 MHz	max.	5,5	5,5
Tracking resistance	CTI	(200)	200
Dielectric strength (1-minute test stress) at 90°C parallel to the coating direction	kV	35	40-60
Dielectric strength (1-minute test stress) at 90°C perpendicular to the coating direction	kV/mm	10,2	13,3-16,7

Electrolytic corrosion	max.	-	AN 1,4
* TI 180°C and UL listed available on request.			

"The values in () are characteristic values given for information only; they shall not be regarded as a requirement of this standard. The test values given are mean values which are backed up by ongoing statistical tests and checks. These data are purely indications of quality and only lead to purchase contract assurances if expressly agreed. The European Union Directive 2011/65/EU on the restriction and use of certain hazardous substances in electrical and electronic equipment (RoHS) came into force on January 27, 2011. These are the following substances: Lead, Cadmium, Hexavalent Chromium, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers, Mercury. We hereby declare that all our products are produced RoHS compliant. We act as a downstream user (producer of articles) according to the EU Regulation 1907/2006 (REACH Regulation) of December 18, 2006. According to information from our suppliers the materials we use do not contain any substances from the candidate list (SVHC list) of 15.06.2015 in a concentration of more than 0.1 mass%."