HGW 2372.1

EPOXY LAMINATE / FR-4 / EP GC 202

Material description

HGW 2372.1 is a combination of epoxy resins and high-quality glass fabrics. This temperature-resistant thermoset with excellent mechanical properties is characterised by increased flame resistance compared to HGW 2372 and HGW 2372.4.

Conformities

RoHS, REACH

Physical properties	Test method	Value	Unit
Density	DIN EN ISO 1183-1	1.9	g/cm3
Water absorbtion	DIN 53495	28	mg
Sliding friction		◯	
Abrasion resistance		◯	

Mechanical properties	Test method	Value	Unit
Tensile strength	DIN 53455	220	MPa
Modulus of elasticity from bending test	ISO 178	22000	MPa
Bending stress at fracture perpendicular to the layer direction	ISO 178	340	MPa
Notched impact strength (Charpy) parallel to the layer direction	DIN 53453	50	kJ/m2
Compressive strength parallel to the direction of layering	DIN 53454	200	MPa
Compressive strength perpendicular to the layer direction	DIN 53454	350	MPa

Thermal properties	Test method	Value	Unit
Coefficient of linear expansion	VDE 0304/2	10-20	10^{-6*K}-1
Thermal endurance	VDE 0304/2	120	°C
Flammability	UL 94, 3 mm	V0	

Electrical properties	Test method	Value	Unit
Dielectric strength at 90°C in oil perpendicular to laminations	IEC 60243-1	10.2	kV/mm
Breakdown voltage at 90°C in oil parallel to laminations	IEC 60243-1	45	kV
Comparative tracking index (CTI)	IEC 60112	200	CTI

These technical data have been determined as average values by our suppliers from many individual measurements. In all measurements, the test specimens were tested in the dry state. We pass on the data with reservation. The table does not claim to be complete or correct. Material technology is subject to constant further development. No rights or guarantees can be derived from it. Own tests are necessary because the environmental and operating conditions (humidity, temperature, mechanical forces, radiation and chemicals, etc.) set limits in the application.

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