

## Application purpose and characteristics

For mechanically highly stressed parts with use at high temperatures. Ideal material for electrical insulating fittings for electrical machinery, transformers and switch manufacturing as well as temperature-resistant components for machinery and chemical plant engineering. Very high mechanical strength and resilience even at very high operating temperatures. No creep under load. Very good electrical insulation properties and good chemical resistance.

This material type is in accordance to the following standards:

IEC 60893: EP-GC 203 / EP-GC 308

NEMA LI 1: G11

Material name, short description	EP GC
Material name, based on technical standards	Epoxy laminated glass fabric
Density	2 g/cm <sup>3</sup>
Color	natural (green-brown)
Compound code	EP GC 203.021-00

## Mechanical properties

Tensile strength	300 N/mm <sup>2</sup> ISO 527
Flexural modulus of elasticity	24000 N/mm <sup>2</sup> ISO 178
Bending strength 1	400 N/mm <sup>2</sup> ISO 178 23 °C
Bending strength 2	280 N/mm <sup>2</sup> ISO 178 120 °C
Bending strength 3	200 N/mm <sup>2</sup> ISO 178 150 °C
Compressive strength 1	500 N/mm <sup>2</sup> ISO 604 perpendicular to laminations
Compressive strength 2	150 N/mm <sup>2</sup> ISO 604 parallel to laminations
Impact strength	#ErrorkJ/m <sup>2</sup> ISO 179/3C Charpy parallel to laminations
Notch impact strength	50.00 kJ/m <sup>2</sup> ISO 179/3C Charpy parallel to laminations

## Electrical attributes

Comparative tracking index	180 CTI IEC 112
Dielectric tension	45 kV IEC 243 at 90°C in oil parallel to laminations
Dielectric constant 1	5.5 IEC 250 at 50 Hz and 1 MHz
Dielectric strength 1	13 kV/mm IEC 243 at 90°C in oil perpendicular to laminations, thickness 3 mm
Insulation resistance	5 x 10 <sup>18</sup> Ohm IEC 167 after immersion in water

## Other attributes

Water absorption	30 mg ISO 62-1 Thickness 10 mm
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In compliance with **RoHS** and **REACH** directives.

This information is based on our available data. These values are measured on standard test specimens and are within the normal tolerance range of material properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. The customer is solely responsible for quality and suitability of material for his application. He has to test usage and processing prior to use. Angst+Pfister makes no guarantees for the suitability of the material for any given application and assumes no obligation or liability in connection with the information provided above.