



II Epoxy Glass Slot Wedges II

Material Grade: Glassoxy Composite(G11 / FR4 / EPGC)

Intended Use: Slot insulation and mechanical support in electrical machines

1. General Description

Epoxy glass slot wedges are high strength insulating composites designed to secure electrical windings and provide dielectric separation in motors, generators, and transformers. The material consists of glass fiber reinforcement impregnated with thermosetting epoxy resin, offering excellent mechanical, electrical, and thermal performance.

2. Mechanical Properties

Property	Typical Value
Density	1.7 – 1.9 g/cm ³
Tensile Strength	≥250MPa
Flexural Strength (20°C)	~350 MPa
Flexural Strength(155°C)	~175 MPa
Compressive Strength	~350 MPa
Elastic Modulus	20 – 24 GPa
Impact Strength	≥ 33 kJ/m ²



3. Electrical Properties

Property	Typical Value
Dielectric Strength (⊥ lamination)	~11.5 kV/mm @ 90 °C (in oil)
Dielectric Strength (■ lamination)	~35 kV / 25 mm @ 90 °C
Dielectric Constant (1 MHz)	~5.5
Dissipation Factor (tan δ)	~0.04
Volume Resistivity	≥ 10 ¹³ Ω·cm
Insulation Resistance	≥ 5 × 10Ω

4. Typical Applications

- Stator and rotor slot wedges
- Winding support in motors and generators
- Electrical insulation barriers
- High stress mechanical insulation zones

5. Notes

All values are typical and may vary by manufacturer. This datasheet is provided for general guidance only. Users should verify properties with the material supplier for critical applications.