

VINILGRAPH MAGNETIC

1. DESCRIPTION

Bisphenol A-type epoxy vinyl ester resin with graphene, featuring low viscosity and medium reactivity. It is used for manufacturing fiber-reinforced polymer (FRP) reinforcing bars by pultrusion. Its formulation is optimized for efficient impregnation of glass, carbon, or basalt fibers, ensuring excellent wet-out and superior fiber-matrix adhesion, which is essential for high-performance structural applications. In addition, it provides excellent corrosion resistance against a wide range of organic and inorganic acids, alkalis, oxidizing chemicals, and saline solutions, etc.

2. PROPERTIES

- High response to external magnetic fields.
- High chemical resistance.
- Improved thermal conductivity.
- Fully compatible with carbon and glass fiber.
- Excellent corrosion resistance.

3. APPLICATIONS

- Specifically designed as a base resin for fiberglass applications.
- Provides good interlayer adhesion and very low linear and volumetric shrinkage.
- Inert mineral fillers can be added, such as calcium carbonate, aluminum trihydrate, dolomite, silica, etc.
- Cobalt salts and MEK peroxide can be added to increase or decrease the resin curing times.
- Application can be manual or machine-assisted.
- Suitable for pultrusion, hand lay-up, BMC, and SMC processes.

4. TECHNICAL CHARACTERISTICS

APPEARANCE	Dark liquid
GEL TIME [25°C] (min)¹	15 – 20
DENSITY (kg / cm³)	1.5 – 1.7
VISCOSITY BROOKFIELD [H3, 25°C] (cP)	3 000 – 4 000

(1) 100/0,3% CoOct/1,2% PMEK

5. MECHANICAL PROPERTIES

	APPLY STANDARD	VALUE
FLEXURAL MODULUS (MPa)	UN 14125	40 000 – 50 000
FLEXURAL STRENGTH (MPa)	UN 14125	400 – 500
MAXIMUM DEFLECTION (mm)	UN 14125	5.00 – 6.00
TENSILE MODULUS (MPa)	UN 527	15 000 – 20 000
TENSILE STRENGTH (MPa)	UN 527	250 – 350
ELONGATION AT BREAK (mm)	UN 527	2.00 – 3.00

Mechanical properties of glass fibre reinforced resin (50%)

6. STORAGE AND PACKAGING

- The product must be stored in a dry place at a temperature below 25°C.
- Expiration date is 6 months under those conditions.
- Generally, the products will be supplied in IBC format.
- For other quantities and/or packaging: contact Graphenano Composites Sales Department.