

REINFORGRAPH 901 PLUS PREMIUM

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VERSION: V05

1. DESCRIPTION

A bisphenol A type vinylester epoxy resin with graphene and other fillers, of medium viscosity and low reactivity. It provides excellent corrosion resistance against a wide range of organic and inorganic acids, alkalis, oxidising chemicals and salt solutions, etc. It also provides very good mechanical strength, such as tensile and flexural strength, while, incorporated as a reinforcement in ceramic or other ornamental stones, it can increase the ultimate strength of the final pieces with very good adhesion. It can be used as an adhesive for reinforcing mesh.

2. PROPERTIES

- **High mechanical properties.**
- **Superior Calorific Value (PCS) ~ 15.00 J/g.**
- **Excellent corrosion resistance.**
- **Very good adhesion and high resistance on ceramic pieces, marble, ornamental stones, etc.**

3. APPLICATIONS

- Specially designed as a resin reinforcement for ceramics, marble, artificial stone, cladding materials, etc.
- Excellent adhesion and very low linear and volumetric shrinkage.
- The percentage of MEK peroxide to be added is between 0.4 % and 0.5 %, but can be increased to 2 % to reduce gel time.
- The application can be manual or by machine.
- May be used in pultrusion processes.

4. TECHNICAL CHARACTERISTICS

Appearance	Dark liquid
Specific Gravity	1.4 - 1.6
Gel time (25 °C)⁽¹⁾	45 - 50 min
Brookfield Viscosity (SPL3V15, 25 °C)	2 500 - 3 500 cPs
Superior Calorific Value	15.00 J/g
Exothermic peak temperature (in 75 min)	39.5 °C

5. MECHANICAL CHARACTERISTICS

Flexural modulus	8 000 - 9 000 MPa
Flexural strength	40 - 50 MPa
Maximum deflection (dL)	0.55 - 0.65 mm
Tensile modulus	5 000 - 6 000 MPa
Tensile strength	25 - 35 MPa
Elongation at break	0.45 - 0.60 %

Mechanical properties of the catalysed resin

6. MECHANICAL CHARACTERISTICS IN CERAMIC REINFORCEMENT

Ceramic reference sample (100x17 mm): Thickness 3.4 mm; Maximum strength **101 N**; Mass 13.3 g

Ceramic sample + **Reinforgraph** resin (0.5 mm): Thickness 3.9 mm; Maximum strength **112 N**; Mass 15.3 g

Ceramic sample + **Reinforgraph** resin (1.1 mm): Thickness 4.5 mm; Maximum strength **134 N**; 17.9 g

7. STORAGE AND PACKAGING

- The product should be **stored in a dry place** at a temperature not exceeding **25 °C**.
- The expiry date is **4 months** under these conditions.
- In general, the products will be supplied in **drum format**.
- For other quantities and/or packaging: **contact us**.