

EPOXIGRAPH CERAMIC

1. DESCRIPTION

The EPOXIGRAPH CERAMIC is an advanced epoxy system specifically formulated for use as reinforcement in ceramic materials or other ornamental pieces to increase the maximum strength of the final pieces with very good adhesion. It can be used as an adhesive for reinforcement meshes. Its design is optimized for efficient impregnation of glass fibers, ensuring excellent wetting and superior fiber-matrix adhesion, which is essential for high-performance structural applications.

This 100% solvent-free two-component system consists of:

- **EPOXIGRAPH REBARS**

Epoxy resin doped with graphene nanomaterials, which improves mechanical strength, thermal stability and durability in aggressive environments.

- **EPOXIGRAPH HARDENER REBARS**

Anhydrous hardener, specially developed to provide controlled polymerisation, high cross-linking and excellent in-line workability.

2. PROPERTIES

- High adhesion power and high resistance on ceramic tiles, marble, ornamental stones, etc.
- Great chemical and mechanical resistance
- Extended lifetime
- Not shrink during hardening
- High performance
- No crystallize at low temperatures

3. APPLICATIONS

EPOXIGRAPH CERAMIC has been developed and designed as a reinforcement for ceramics, marble, artificial stone, cladding materials, etc. It can be applied manually or by machine and is mainly used in the ceramics industry, marble workshops, quarries, etc., where it is used as a reinforcement with good adhesion and low linear and volumetric shrinkage.

For pultrusion applications, it should be noted that:

- The mixture must be homogenised before the product is applied.
- Temperature affects drying time. The system is designed for a working temperature between 30 and 50 °C. Higher temperatures will reduce the pot life of the mixture.
- Hardened product residues can only be removed mechanically.

4. TECHNICAL CHARACTERISTICS

	EPOXIGRAPH REBARS	EPOXIGRAPH HARDENER REBARS	MIXTURE
VISCOSITY (cP)	8 000 – 10 000	5 – 60	600 – 900
DENSITY (kg / cm³)	1.1 – 1.2	0.9 – 1.0	1.0 – 1.1
GEL TIME (min)	-	-	300 – 400
CURING	-	-	1 h at 90 °C + 2 h at 140 °C
RATIO	100	20.5	100:20.5

5. MECHANICAL PROPERTIES

	STANDARD	VALUES
FLEXURAL STRESS(MPa)	UN 14125	6 000 – 7 000
FLEXURAL STRENGTH (MPa)	UN 14125	30 – 50
DEFLECTION (mm)	UN 14125	0.5 – 1.0

6. STORAGE AND PACKAGING

- The product must be stored in a dry place at a temperature below 25°C.
- Expiration date is 1 year under those conditions.
- Generally, the products will be supplied in drum format.
- For other quantities and/or packaging: contact Graphenano Composites Sales Department.