

Kimitech CMP

ST16-0123



Liquid two-component epoxy adhesive with high mechanical performance for bonding and impregnation of FRP systems



DESCRIPTION

Kimitech CMP is a two-component, low viscosity, liquid, epoxy resin with high wetting power. **Kimitech CMP** is ideal for impregnating high grammage mesh and tapes and it can easily penetrate cracks and micro-fractures (up to 0,3 mm thick). It has excellent dielectric properties, The product comes in two ready-dosed containers (A resin+B hardener).

Kimitech CMP is CE marked as structural bonding agent in compliance with EN 1504-4 and as anchoring product for steel reinforcement bars according to EN 1504-6. The product is part of Kimia systems which gained the Italian **CVT** n. 405.

It's CE marked as a protective coating according to EN 1504-2 (MC and IR intervention principles) and it is CE marked as a synthetic resin based screed for internal use in buildings according to EN 13813.

ADVANTAGES

- High adesion; high wetting power; low viscosity.
- Suitable for different kinds of work

USES

Impregnation of structural reinforcement meshes using the "Béton Plaqué" technique, injections into damaged structures, vertical downwards and sub-horizontal anchoring. In combination with **Kimifill** it is used to obtain spreadable, epoxy mortars to rebuild lacking parts of wood structures, to build high resistance continuous floorings and repair damaged joints.

APPLICATION

	Manual application		Gun application
	Pourable		Brush or roll application

Information on how to carry out each type of application, please refer to the specifications and technical data sheets of the materials to be used.

Surfaces to be treated must be perfectly dry (newly cast concrete must be left to cure for at least 4 weeks), with no detaching parts, dust, grease, paint or parting compounds of any kind.

Pour component "B" (hardener) into component "A" (resin), then mix with a low speed stirrer (200-300 RPM) until an even mixture is formed, making sure not to let air in while mixing. For partial mixtures, respect the proportions by weight (not by volume) indicated on the packs.

Structural reinforcement using composite systems

Prepare the surface to be treated using as a primer **Kimicover FIX** and once applied the epoxy adhesive **Kimitech EP-TX** or then lay the fabric, pressing it down lightly with a suitable metal roller to improve adhesion to the adhesive and to prevent dangerous air bubbles from forming. Apply more than one coat of **Kimitech CMP** to the fabric using a brush to enhance overall impregnation. All coats should be applied wet on wet. If more than one reinforcement layer is required, or if the reinforcement needs to be protected, contact our Technical Support Service.

CONSUMPTION

Bonding and fabric impregnation → minimum consumption 1,2 Kg /m²

Fabric impregnation (successive layers) → 0,5 - 0,8 Kg/mq

PACKAGING

- Com da Kg 5,33 (A: 4 Kg + B: 1,33 Kg)
- Com da Kg 16 (A: 12 Kg + B: 4 Kg)

STORAGE

Stored in a sealed container in a dry place, the product will remain stable for 12 months.

Characteristics	Typical data
Freezing time (200 g at 25°C)	25 mins
Total curing at 25°C	7 days
Colour	Transparent
Viscosity (poises at 25°C)	8 - 10 (A+B)
Dry residue (A+B) UNI 8309	> 98 %
Compressive strength at 7 dd ASTM D695-02a	> 50 MPa
Max tensile strength ASTM D 638	> 30 MPa
Tensile tangent modulus ASTM D 638	1760 MPa

Characteristics	EN 1504-4 limits "Restoring method 4.3 Re-inforcing with adherent plate"	Typical data
Elastic modulus in compression [MPa] EN 13412	≥ 2000	3406
Workability time EN ISO 9514	Declared value	Workability at 20°C: 30 minutes In 15 mins = 3,4 MPa In 30 mins = 3,2 MPa In 45 mins = 1,8 MPa
Thermal expansion coefficient [µm/m°C] EN 1770	≤ 100	98,5
Glass transition temperature [°C] EN 12614	≥ 40	58,4
Total shrinkage for structural adhesive agents EN 12617-1	≤ 0,1 %	0,06 %
Steel-steel adhesion [MPa] EN 12188	Shear	Shear
	50° 60° 70°	50° 60° 70°
	≥ 50 ≥ 60 ≥ 70	65,3 85,6 119,1
Open time EN 12189	Traction	Traction
	≥ 14	18,3
Durability EN 13733	Declared value ±20%	Ok
	Specimens must not break due to thermal cycles or hot-humid	Ok

Impregnation resin	Kimitech EP-IN
Type of resin	Epoxy
Catalysis ratio by weight	A:B=3:1
Elastic modulus on compression [Mpa] EN 13412	3406
	Workability at 10°C: 30 minutes
Pot Life at 10 °C (min)) measured as workability time EN ISO 9514	At 0 min = 3,6 Mpa; At 15 mins = 3,6 Mpa; At 30 mins = 3,6 MPa
	Workability at 20°C: 30 minutes
Pot Life at 20 °C (min)) measured as workability time EN ISO 9514	At 15 mins = 3,4 Mpa; At 30 mins = 3,2 MPa At 45 mins = 1,8 MPa
	Workability at 35°C: 5 minutes
Pot Life at 35 °C (min)) measured as workability time EN ISO 9514	At 0 min = 3,7 Mpa; At 5 mins = 3,6 Mpa
Suggested application temperatures range	10 °C – 35 °C
Thermal expansion coefficient [µm/m°C] EN 1770	98,5
Glass transition temperature [°C] EN 12614	58,4
Total shrinkage for structural adhesive agents EN 12617-1	0,06 %

Characteristics	EN 1504-6 limits "Steel reinforcement bars anchoring"	Typical data
Pull-out resistance of steel rods – movement under a load of 75 kN [mm] EN 1881	≤ 0,6	OK
Creep movement with a load of 50 kN for 3 months [mm] EN 1544	≤ 0,6	OK
Glass transition temperature [°C] EN 12614	≥ 40	58,4
Reaction to fire	Euroclass	E
Chloride ion content	≤ 0,05%	OK

WARNING

Product intended for professional use.

Do not apply the product with imminent rain forecast.

The equipment used for the preparation and laying of the product must be cleaned with **Solvente EPOX** before hardening.

Handle with care: use gloves, protective creams and goggles to avoid contact with skin and eyes.

Any **Kimifill** quartz aggregates or sawdust added to the product must be perfectly dry.

For further information and advice on safe handling, storage and disposal of chemical products, the user must refer to the most recent Safety Data Sheet, containing physical, ecological, toxicological and other data related to safety. All technical data shown in this Technical Data Sheet are based on laboratory tests. Actual measurement data may

vary due to circumstances beyond our control. The information and requirements indicated in this Technical Data Sheet are based on our current knowledge and experience and are to be considered, in any case, purely indicative. They cannot guarantee the final result of the applied product and they have to be confirmed by exhaustive practical applications; therefore the user must test the suitability of the product for the intended application and its purpose. Users must always refer to the latest version of the local technical data sheet related to the product.