



## TECHNICAL DATA SHEET

PRODUCT

# EPOXY CER

### EPOXY ADHESIVE, BI-COMPONENT, FAST POLYMERISATION, FOR BUILDING MATERIALS, BRICKS, CERAMIC PRODUCTS, MARBLE, GRANITE, WOOD, METAL

The product is expressly formulated for mechanical application on ceramic materials and is based on epoxy resin reinforced by mineral fillers and catalyzed by a mix of aminic hardeners in order to obtain a quick hardening also at room temperature. The different color of the two components allows a sight control of the homogeneity of mixing. Furthermore, once hardened and completed the catalysis (24-48 hours after the application), the product can get in contact with the water of swimming pools and thermal waters.

### COMPOSITION

COMPONENT **A**: epoxy resins bisphenol A/F, mineral fillers and mineral pigments.

COMPONENT **B**: mix of agents of catalysis containing amine adducts, mineral fillers and mineral pigments

### MIXING RATIO

The epoxy adhesive need exact mixing ratio in weight between the component **A** (resin) and the component **B** (catalyst), and in this case:

COMPONENT **A** : COMPONENT **B** = **100 : 100**  
(i.e.: 1 kg of component A mixed with 1 kg of component B)

### PHYSICAL CHARACTERISTICS

|                                      | COMPONENT A                                  | COMPONENT B | MIXTURE       |
|--------------------------------------|----------------------------------------------|-------------|---------------|
| Color                                | light grey                                   | dark beige  | cement grey   |
| Specific weight (g/cm <sup>3</sup> ) | 1,50 ± 0,20                                  | 1,50 ± 0,20 | 1,50 ± 0,20   |
| Using time after mixing              | (100g. comp. A + 100g. comp. B) at 25°C/77°F |             | 10-20 minutes |
| Hardening time after mixing          | (100g. comp. A + 100g. comp. B) at 25°C/77°F |             | 55-65 minutes |
| Total hardening time                 | (complete catalysis)                         |             | 24-48 hours   |

*IMPORTANT: the product doesn't harden at temperature lower than +10°C/50°F*

*Temperatures higher than +30°C/86°F reduce excessively the use time before hardening*

### PREPARING THE SURFACE

The pieces to be worked/bonded must be porous, dry, free from dust, greasy and alien substances and, if needed, mechanically roughened.

### APPLICATION

Mix carefully the two components with the above mentioned mixing ratio until the complete homogeneity of the mixture without lumps, till to homogeneous colour, and apply the adhesive

### IMPORTANT

For materials of low or you very low porosity, in order to have a mechanical seal with a good degree of safety, you must make a joint or insert fixing pins.

*WARNING! The prolonged exposure to UV rays causes the alteration of the initial colour of the product. The product is suitable for gluing/bonding and not for visible grouting, especially outdoors*

### THICKNESS

The best adhesive characteristics are obtained with thicknesses of adhesive from 0.3 to 1.0 mm.

### STABILITY

The product is stable 12 months in the original and closed cans stored at temperatures between +10°C/50°F and +30°C/86°F. Protect from frost the stored cans.

### POLYMERISATION

The polymerization rate increases with increasing temperature.

The application temperature must not be lower than +10°C / 50°F

Suggested application temperature between +10°C/50°F and +30°C/86°F



## HARDENING TIME

65 minutes in mass; 190 minutes in thin layer (applied)

## SHRINKAGE COEFFICIENT

0,3% about

## SAFETY

See the Material Safety Data Sheet

## NOTE

Epoxy adhesives have excellent adhesive characteristics even on surfaces that are lightly damp. The low shrinking rate (0,1 to 0,5%) creates very little tension both during and after the hardening process, enabling great stability of the adhesion and the materials. Once cured, the adhesives are absolutely resistant to freezing and water and are therefore recommended for outdoor application; however, prolonged exposure to direct sunlight can cause resin to yellow. Thanks to the very high adhesive flexibility, it is possible to bond a variety of material as concrete, steel, wood, many plastics, and natural and artificial stone in any combination even in alternating rows.

| TECHNICAL DATA<br>(AFTER HARDENING)         |          |                                 |
|---------------------------------------------|----------|---------------------------------|
| PROPERTIES                                  | value    | unit of measure                 |
| CONTENT OF INORGANIC FILLERS                | 50       | %                               |
| APPARENT DENSITY                            | 1,5      | g/cm <sup>3</sup>               |
| FLEXURAL STRENGTH                           | 100      | MPa                             |
| TENSILE STRENGTH                            | 45       | MPa                             |
| ELASTIC MODULE                              | >10000   | MPa                             |
| COMPRESSION RESISTANCE                      | 90       | MPa                             |
| RESISTANCE TO IMPACT                        | 3,8      | KJ/m <sup>2</sup>               |
| RESILIENCE                                  | 1,1      | KJ/m <sup>2</sup>               |
| DIMENSIONAL STABILITY HEAT (Martens method) | 70 / 158 | °C / °F                         |
| LONGITUDINAL EXPANSION COEFFICIENT          | 70       | 10 <sup>6</sup> K <sup>-1</sup> |
| LOSS IN WEIGHT (7 days at 100°C / 212°F)    | 0,3      | %                               |
| WATER ABSORPTION                            | 0,04     | %                               |

*The a.m. data refer to the resin*

**LIMITATION OF LIABILITY** The data provided derive from published information or from our own laboratory tests. The information provided here must be considered as a guideline and not as any form of performance guarantee. Liability for defective products, when verified, is limited to refund of the purchase price since application of the product is beyond the control of the manufacturer or supplier.

**A PRELIMINARY TEST IS ALWAYS RECOMMENDED BEFORE THE APPLICATION**