

F.48 Poxycem



Two-component fluid epoxy adhesive, solvent-free, for construction joints, repairing cracks and splitting in screeds, structural bonding, bonding grouts, with high bonding and resistance.

For indoors and outdoors.

PROFESSIONAL USE.



SUITABLE APPLICATIONS

- For making monolithic construction joints between fresh and old concrete;
- bonding prefabricated elements in concrete;
- connection through dripping under slab of machinery (it is suggested to mix with a 30% of quartziferous sand with a granulometry not lower than 0,5 mm);
- mixed bonding concrete-steel;
- for filling cracks in concrete;
- construction joints for structural reinforcement of beams and columns;
- construction joints in deteriorated industrial floorings;
- construction joints of rigid waterproof junctions (for example foundation-wall elevation of basins);
- sealing cracks and splitting in cement-based and also heated screeds;
- reinforcement of beams and columns using the beton-plaqué technique;
- injections for reinforcements in general of vaults, walls, etc.;
- for making bonding grouts for cement-based or mortar screeds for evening out the surface on cement-based substrates, old bitumen membranes or metal substrates fixed tightly.
- realization of bonding grouts "wet on wet" on metal substrates.

WARNINGS

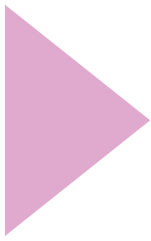
- Do not use in the following cases:
- on substrates subject to rising damp;
 - on damp substrates;
 - vertically without the appropriate formworks;
 - in temperatures lower than +5°C;
 - on powdery, crumbly or non-adhesive substrates;
- Do not make construction joints in fresh concrete on the hardened product.
Do not apply mortars directly to even out the dimensions on the hardened product.
Do not add cement, binders or water: the product is ready to use/pre-measured out.

PREPARATION OF THE MIX

The product is pre-measured out. Do not partially mix the product.
Mix carefully the two components using a low-speed electric mixer until you obtain a homogeneous mortar free from lumps.
The temperature sensitively affects the speed of the reaction of the product: do not store the mixture in the sun or a hot place.

APPLICATION

Apply onto the substrate previously cleaned with a trowel or brush.
It can be simply dripped into the cracks of 0.5 mm in width.
For widths less than 0.5 mm the cracks must be widened into a "V". Dust accurately prior to filling the crack.
For construction joints, apply the cement-based mortars and premixed materials for substrates such as for example F.69 CERMALT or F.69 CERMALT PRONTO onto the substrate freshly treated with F.48 POXYCEM.
If the cracks are of a significant width or higher thicknesses are required, it is possible to load the product with 20/30% of washed and dried quartziferous sand.
For vertical applications it is necessary to make formworks, treating them previously with the appropriate dismantling agent (F.82 DISARMANTE or use F.49 POXYRAPID).



COVERAGE

Varies according to the planarity of the substrate and the type of application.

As a purely general guide:

- construction joints with uneven substrate: 0.5-0.7 kg/m²;
- construction joints with very uneven substrate: 1.0-2.0 kg/m²;
- sealing of cracks: approx. 1.35 kg/dm³ of cavity to be filled;
- bonding prefabricated elements in concrete or concrete-steel bonding: 1,35 kg/dm² per mm of thickness;
- bonding grouts: approx. 0.2 kg/m².

CLEANING

Wash hands and equipment with water before setting. Afterwards clean mechanically or use acetone or trichloroethylene.

PACKAGING

Kits (component A: 1,5 kgs + component B: 0,5 kgs).

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Both components of F.48 POXYCEM are irritant by direct contact. Furthermore, following repeated contact, sensitization of the skin could occur. Always use gloves while applying the product and protect the eyes especially while mixing the two components. In case of contact with the skin, wash with plenty of water and soap. In case of sensitization, consult a doctor. In case of contact with the eyes, wash with plenty of running water and consult a doctor. F.48 POXYCEM component A is dangerous for aquatic organisms: avoid dispersing the product in the environment.

For further and complete information, it is recommended to refer to the latest version of the safety data sheet.

TECHNICAL DATA

| | | |
|---|--|---------------------------|
| Product belonging to "Sistema Navi" ("Ship System") certified with form B as primary deck coverings | Certificate no. 0987/MED-B/447 | |
| | Comp. A | Comp. B |
| Appearance | Fluid paste | Fluid paste |
| Hazard classification | See the safety data sheet | See the safety data sheet |
| Volumic mass (g/cm ³) | 1,55 | 1,02 |
| Brookfield viscosity (Pa*s) | 20 (#6 - rpm 10) | 1,5 (#2 - rpm 10) |
| Mixing ratio | Pre-batched | |
| Volumic mass of mix | 1350 Kg/m ³ | |
| Brookfield viscosity (Pa*s) | 4,5 (#5 - rpm 20) | |
| *Pot life | | |
| at +10°C | 90 min. | |
| at +23°C | 60 min. | |
| at +30°C | 40 min. | |
| *Open time | | |
| at +10°C | 5-6 hours | |
| at +23°C | 3-4 hours | |
| at +30°C | 1,5-2,5 hours | |
| *Final hardening | 7 days | |
| Application temperature range | From +5°C to +30°C | |
| Storage | 24 months in original packaging in a dry place | |
| PROTECT AGAINST FROST (during transport and storage) | | |

*Data obtained in standard laboratory conditions.

FINAL PERFORMANCE

| Performance characteristics | Test method | Requirements according to EN 1504-4 | Performance of product |
|--|-------------|--|---------------------------------------|
| Linear shrinkage (%): | EN 12617-1 | ≤ 0,1 | 0.02 (at +23°C) 0.10 (at +70°C) |
| Compressive modulus of elasticity (N/mm ²): | EN 13412 | ≥ 2.000 | 3.000 |
| Coefficient of thermal expansion: | EN 1770 | ≤ 100 x 10 ⁻⁸ K ⁻¹ (measured between -25°C and +60°C) | 97 x 10 ⁻⁸ K ⁻¹ |
| Glass transition temperature: | EN 12614 | ≥ +40°C | > +40°C |
| Durability (freeze/thaw and hot, damp cycles): | EN 13733 | no failure of steel test sample | meets specifications |
| Reaction to fire: | EN 13501-1 | Euroclass | C-s1, d0 |
| Concrete-steel bond strength (N/mm ²) | EN 1542 | not required | > 3 (failure of concrete) |
| Bonded mortar or concrete | | | |
| Bond strength to concrete: | EN 12636 | failure of concrete | meets specifications |
| Sensitivity to water: | EN 12636 | failure of concrete | meets specifications |
| Shear strength (N/mm ²) | EN 12615 | ≥ 6 | > 9 |
| Compressive strength (N/mm ²) | EN 12190 | ≥ 30 | > 70 |
| Strengthening using bonded plate | | | |
| Shear strength (N/mm ²) | EN 12188 | ≥ 12 | 50° > 35 60° > 37 70° > 34 |
| Bond strength: - pull out (N/mm ²) | EN 12188 | ≥ 14 | > 24 |
| Bond strength: - inclined shear strength (N/mm ²) | EN 12188 | 50° ≥ 50 60° ≥ 60 70° ≥ 70 | 50° > 73 60° > 87 70° > 107 |

SPECIFICATIONS

The splitting and cracks in cement-based and heated screeds must be repaired with a two-component epoxy product with a high modulus which guarantees a monolithic sealing, such as F.48 POXYCEM della CERCOL Spa.

This technical data sheet is based on the knowledge acquired from our experience. We reserve the right to modify the data contained herein as a result of improvements and technical progress. Considering the different materials and diverse working techniques, which are outside of our control, we cannot accept any responsibility for the use of these instructions. We therefore recommend undertaking sufficient test applications and consulting our Technical Assistance service.

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