

Quickmast 342

Solvent-free high strength adhesive for structural reinforcement



DESCRIPTION

Quickmast 342 is a two-component, solvent-free epoxy adhesive for bonding structural reinforcement.

Formulated to give an easily applied paste and suitable for bonding DCP Profiber CP carbon fiber reinforced plates to reinforced concrete, masonry, stonework, aluminum and timber.

Quickmast 342 is thixotropic in nature and is suitable for vertical and overhead bonding and structural repair.

APPLICATIONS

To provide continuous bond between DCP Profiber CP plates and several types of substrates such as:

- » Reinforced concrete.
- » Masonry.
- » Stonework.
- » Aluminum.
- » Timber.

ADVANTAGES

- » High bond strength to concrete, masonry, stonework, aluminum, timber and DCP Profiber CP Plates.
- » High early and ultimate strength.
- » High resistance to abrasion and shock.
- » Easily applied on vertical and overhead surfaces.
- » Thixotropic, non-sag.
- » No primer required.
- » Negligible shrinkage.
- » Non-sag on applications.
- » For gap filling and pin holes and other surface irregularities prior to bonding structural reinforcement.

METHOD OF USE

SUBSTRATE PREPARATION

All substrates shall be free from oil, grease or any contaminants. It is recommended to blast clean substrates and clean all debris or dust.

The substrate should be even and checked with a flat metal edge, the tolerance accepted shall not exceed 10 mm in a 2 m length.

TECHNICAL PROPERTIES:

Appearance:	Thick grey paste
Compressive strength: ASTM D695	≥ 70 MPa @ 7 days
E-Modulus (compression): ASTM D695	≥ 12000 MPa @ 7 days
Tensile strength: ASTM D638	≥ 10 MPa @ 7 days
Adhesive strength: ASTM D4541	≥ 3.5 MPa (concrete failure)
Pot life (F.I.P.):	25 min @25°C
Slant shear bond strength: (old/new concrete) AASHTO T-237-73	≥ 25 MPa
Heat deflection: ASTM D648	≥ 50°C

MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with a suitable paddle should be used.

Stir the base and the hardener individually to disperse any settlement. Entire contents of the base and hardener should be poured into a suitable size container and mixed mechanically for 3 minutes.

APPLICATION OF PROFIBER CARBON PLATES

All pinholes, honeycombs, or surface irregularities on the concrete surface shall be treated and evened out using Quickmast 342 epoxy putty and leveling compound.

Use Quickmast 342 to bond the carbon plates by placing it on the Profiber carbon plate after cleaning from the grinded side. Use a spatula for the placement and make sure that sufficient material is placed on the carbon plate.

Apply a thin layer of Quickmast 342 on the prepared substrate. Then apply the fibre plate with the Quickmast 342 onto the substrate.



Quickmast 342

Typical thickness of application of Quickmast 342 is between 0.5 - 3.0 mm. Use a small roller to roll the plate till the excessive adhesive is pushed out from the sides of the plate and remove the excess with a spatula.

When Profiber CP Plates are intersecting, the bottom plate should be allowed to cure, and then the surface in crossing zone should be thoroughly cleaned prior to the application of the top layer. Allow the adhesive to cure for 7 days prior to installing further renders or coating.

COVERAGE

Typical coverage of Quickmast 342 is 1.4 - 1.5 kg/m² per mm. The table below shows the expected consumption of Quickmast 342 per meter length for different plate widths at 2.0 mm thickness.

Width of Plate (mm)	Quickmast 342 (kg/m) @ 2 mm thickness
50	0.15
60	0.17
80	0.23
90	0.26
100	0.29
120	0.35
150	0.44

CLEANING

Quickmast 342 and equipment can be cleaned with an industrial grade solvent.

PACKAGING

Quickmast 342 is packaged in twin component packs of 15 kg.

STORAGE

Quickmast 342 has a shelf life of 12 months from date of manufacture if stored in a shaded cooled area.

If these conditions are exceeded, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

Some people are sensitive to epoxy resin systems and may develop dermatitis on skin contact. Rubber gloves and/or barrier creams, protective clothing, goggles and respirator shall be worn while handling the materials.

Sufficient mechanical and/or local exhaust ventilation shall be provided to maintain easy working conditions. If contact with skin or eyes occurs, washing with plenty of water. SOLVENT SHALL NOT BE USED.

If irritation persists, seek immediate medical advice. Smoking and naked flame should be avoided while using the materials.

In case of contact with eyes wash immediately with plenty of water and seek medical advice promptly.

For further information, refer to the Material Safety Data Sheet.

FIRE

Quickmast 342 is nonflammable.

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A wide range of construction chemical products are manufactured by DCP which include:

- » Concrete admixtures.
- » Surface treatments
- » Grouts and anchors.
- » Concrete repair.
- » Flooring systems.
- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.

Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.