

# Quickmast EP500

Highly flexible fast setting three component performance solvent free epoxy ceramic tile and stone adhesive and grout with chemical, abrasion and slip resistance, mould, stain and water impermeability that may be applied on humid substrates



## Description

Quickmast EP500 is a chemical and abrasion resistant solvent free tile adhesive and grout ideal for demanding surface exposure or high traffic areas. Quickmast EP500 may be applied in conditions where the substrate is humid.

Quickmast EP500 is suitable for all types of ceramic tiles and stone in internal, external and submerged conditions. Quickmast EP500 is a three component system consisting of a resin base, hardener and select fillers.

## Applications

Quickmast EP500 is suitable for indoor, outdoor and submerged use in application areas such as:

- ▲ Swimming Pools.
- ▲ Laboratories.
- ▲ Kitchens.
- ▲ Dairy Industries.
- ▲ Meet Poultry and Food Processing Plants.
- ▲ Hospitals.
- ▲ Abattoirs.
- ▲ Pharmaceutical Plants.

## Advantages

- ▲ Application on humid substrates.
- ▲ High chemical resistance.
- ▲ High abrasion resistance.
- ▲ Highly deformable.
- ▲ High slip resistance, for demanding vertical tiling.
- ▲ High bond strength.
- ▲ Mould & stain impermeable.
- ▲ Water impermeable.
- ▲ Fast setting.
- ▲ Suitable for all ceramic tiles and stones.
- ▲ Suitable for internal, external and submerged conditions.
- ▲ Available in a wide range of colours.

## Standards

*As a tile adhesive:*

- ▲ Quickmast EP500 complies with ISO 13007-1 and BS EN 12004 specifications, Class R2T.

## Technical Properties:

Pot life:	80 - 110 min @ 25°C 50 - 80 min @ 35°C
Mixed density:	1.85 ± 0.1 g/cm <sup>3</sup>
Open time, tensile adhesion strength: ISO 13007-2, 4.1	≥ 4.0 MPa (after 20 min)
Shear adhesion strength: ISO 13007-2, 4.3.4	≥ 3.0 MPa
Shear adhesion strength: ISO 13007-2, 4.3.5	≥ 3.0 MPa (after water immersion)
Shear adhesion strength: ISO 13007-2, 4.3.8	≥ 3.0 MPa (after thermal shock)
Abrasion resistance: ISO 13007-4, 4.4	≤ 200 mm <sup>3</sup>
Water absorption: ISO 13007-4, 4.2	< 0.1 g (after 240 min)
Shrinkage: ISO 13007-4, 4.3	< 1.5 mm/m
Compressive strength: ISO 13007-4, 4.1.4	≥ 60 MPa
Flexural strength: ISO 13007-4, 4.1.3	≥ 30 MPa
Service temperature:	- 20 to 100°C
Initial setting time: ASTM C308	7 hr @ 25°C
Full chemical cure:	7 days
Minimum application temperature:	5°C
VOC: ASTM D2369	< 50 g/ltr (complies with LEED)

*As a tile grout:*

- ▲ Quickmast EP500 complies with ISO 13007-3 and BS EN 13888 specifications, Class RG.
- ▲ Quickmast EP500 complies with ANSI A118.3 as a water cleanable tile setting and grouting epoxy.



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## Method of Use

### Surface Preparation

#### 1) As a tile adhesive:

- ▲ Substrates should be clean and free from dust or any contamination.
- ▲ Steel surfaces shall be free from rust or other contaminants, ideally grit blasted to a near white finish in accordance to Swedish standards SA 2 ½.
- ▲ It is recommended that surfaces are in dry condition before tiling. However, Quickmast EP500 can be applied on humid substrates.

#### 2) As a tile grout:

- ▲ Joint surfaces should clean and free from dust or any contamination.
- ▲ Joints should be cleaned to the full thickness of the tile or to a minimum depth of 2/3 of the tile thickness.
- ▲ Joints should be dry before grout filling.

### 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.

The entire contents of the base and hardener should be poured into a suitable size container and mixed mechanically for 2 minutes. Add the filler to the base/hardener mixture and mix for another 3 minutes until a uniform colour is achieved.

### Placing and Finishing

#### 1) As a tile adhesive:

Spread the mixed adhesive to the substrate using a notched trowel. Apply with pressure a 1 to 2 mm coat with pressure using the flat face of the notched trowel onto the substrate.

Comb diagonally additional mixed adhesive up to a 3 mm total maximum thickness with the notched side of the notched trowel. Do not apply large areas of adhesive that cannot be covered within the open wet time of the adhesive.

#### 2) As a tile grout:

Use a masking tape on joint edges to protect tiles. Fill the mixed grout into the joints using rubber trowel or by using hand operated gun and cartridges.

### Chemical Resistance

ISO 13007-2:2010 after submersion in the following chemicals:

	After 7 days full immersion	After 28 days full immersion
Ammonia 10% - Liquid	R	R
Citric Acid 10%	R	R
Diesel Fuel	R	R
Hydrochloric Acid 10%	R	R
Kerosene	R	R
Lactic Acid 10%	R	R
Nitric Acid 10%	R	R
Phosphoric Acid 37%	RS	RS
Potassium Hydroxide 50%	R	R
Sulfuric Acid 10%	R	R
Vinegar 5%	R	R
Water - Distilled	R	R
Chlorinated Water	RS	RS
Water - Fresh	R	R
Water - Sea, Salt	R	R
Xylene	R	-

*Note: Slight discoloration may occur without affecting the performance.*

Excess grout should be cleaned with a proper wet cloth within the material pot life.

### Working Conditions

Quickmast EP500 should not be applied at temperatures below 5°C.

### Cleaning

Cleaning should be commenced immediately before the grout reaches initial setting. After initial set, product may be removed either by using solvent or by mechanical means but with great difficulty.

### Packaging

Quickmast EP500 is available in 6 kg packs (3.25 ltr) and 12 kg packs (6.5 ltr).

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## Yield

When used as a tile adhesive, each 6 kg pack shall cover 3.2 m<sup>2</sup> at 1 mm thickness.

When used as tile grout The approximate yield of the grout can be calculated as per the following equation:

$$\text{Yield (m}^2\text{/kg)} = \frac{5.1}{WD \left(0.02 + \frac{1}{L} + \frac{1}{H}\right)}$$

Where:

L: Tile length (cm)

H: Tile width (cm)

D: Average joint depth (mm)

W: Average joint width (mm)

*Note: Grout yield is subject to ± 15% tolerance.*

## Storage

Quickmast EP500 has a shelf life of 12 months from date of manufacture if stored at temperatures between 5°C and 35°C in original unopened pack.

If these conditions are exceeded, DCP Technical Department should be contacted for advice.

## Cautions

### Health and Safety

Quickmast EP500 should not come in contact with skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Wear suitable protective clothing, gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier creams provide additional skin protection.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical attention immediately.

For further information refer to the Material Safety Data Sheet.

## Fire

Quickmast EP500 is nonflammable.

## More from Don Construction Products

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

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**Note:**

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