Quickmast 201EJ

High strength repairing and bedding epoxy mortar



Description

Quickmast 201EJ is a three-component, solvent-free and high strength epoxy mortar designed primarily for use in construction and renovation work.

Quickmast 201EJ is supplied in a grey concrete colour to match existing concrete substrates. When finished correctly, it provides an impermeable layer with excellent resistance to abrasion, weathering and chemical attacks. Due to its well graded filler component, Quickmast 201EJ can be easily placed and compacted with negligible shrinkage.

Applications

- ▲ Repairing of deep sections in columns, walls and heavily loaded areas.
- ▲ Bedding mortar beneath the transition strips in expansion joints.
- ▲ Infill mortar beneath steelwork or concrete beams in underpinning works.
- ▲ Sub-base for epoxy resin coatings and fine screed when a greater build is required together with a tighter and smoother finish.

Advantages

- ▲ Exceptional physical properties and mechanical strength.
- ★ High bond strength to concrete substrates.
- ▲ Excellent resistance to a wide range of chemicals
- ▲ Non-shrink repairing and bedding mortar.
- ▲ Water impermeable.
- ▲ Can be applied on vertical and horizontal surfaces.

Method of Use

Surface Preparation

The surface must be structurally sound, free from oil, grease and other forms of contamination. Concrete surface should be dry and suitably prepared either by scabbling or grit blasting to remove any undesired surfaces.

Steel surfaces should be grit blasted to remove all rust and scale (see the DCP Guide to Surface Preparation for further details).

Technical Properties:

BS 6319, Part 7:1985

> 30 MPa @ 1 day > 60 MPa @ 3 days > 70 MPa @ 7 days

Tensile strength: 8 MPa @ 7 days

Flexural strength: BS 6319, Part 3:1990 18 MPa @ 7 days

Bond strength: > 2.0 MPa EN 1542 (concrete failure)

Mixed density: $2.1 \pm 0.1 \text{ g/cm}^3$

Pot life: 40 - 60 min @ 25°C

Priming

Surfaces must be primed with Strongcoat Primer prior to application of Quickmast 201EJ. The primer should be applied so that the surface is thoroughly wet, ensuring there is a continuous film of resin over the surface. Particular attention should be paid to cracks. A nominal 500 microns of resin should be applied to exposed reinforcement.

Quickmast 201EJ should be applied directly after the application of the primer and before the primer starts to gel on the substrate.

Mixing

Quickmast 201EJ comprises of three components, a resin base, hardener and filler which are pre-weighed to the correct proportions. Under no circumstances should part mixing be carried out.

Ensure that the bottom and sides are thoroughly scraped; transfer the entire contents of the hardener container into the resin container. Using a mixer attached to a slow speed electric drill, mix for approximately 2 minutes until a uniform consistency is obtained. The resin mixture should then be transferred to a separate container or forced action mixer such as a creteangle type mixer, and the filler gradually added and mixed for a further 2 minutes or until the filler has thoroughly wetted out and a uniform consistency is obtained.

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Application

Quickmast 201EJ should be applied by first tamping, followed by trowelling before the primer coat has hardened. The mortar should be applied in successive layers not exceeding 50 mm horizontally and up to 12 mm vertically, each layer being well compacted before each application of subsequent material. If the mortar has been allowed to harden, the surface should be abraded and a further coat of Strongcoat Primer to be applied.

Where necessary, the mortar is shaped to the required profile e.g. to form coving and trowelled to a smooth finish. This operation can be aided by lightly wiping the trowel with Quickmast solvent. If formwork or shuttering is to be used a suitable release agent should be applied to the formwork to prevent the Quickmast 201EJ adhering to it.

Working Time

Quickmast 201EJ has a working time of approximately 40 minutes at 25°C. Mixed material should not be left standing for any length of time prior to application, as this will considerably reduce its working time.

Working Conditions

Quickmast 201EJ should not be applied at temperatures below 5°C.

Curing

Quickmast 201EJ should be allowed to cure for 24 hours at 25°C before being subjected to foot traffic. At the same temperature, full mechanical and chemical properties are achieved after 7 days (please consult our Technical Department for details of curing times at other temperatures).

Cleaning

Clean uncured material with DCP solvent. Cured material can only be removed mechanically.

Packaging

Quickmast 201EJ is available in 20 kg pack size comprising resin base, hardener and filler component.

Strongcoat Primer is available in 5 kg packs comprising resin base and hardener.

Specified Thickness Range

Horizontally: 5 - 50 mm (maximum refers to one layer at a time to allow full compaction, deeper sections may be applied but built up in successive layers).

Vertically: 5 - 12 mm.

Yield

Quickmast 201EJ: 10 litre/20 kg Pack. Strongcoat Primer: 5.0 m²/kg.

Storage

Protect from frost and store under dry warehouse conditions at temperatures between 5°C and 40°C.

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

Shelf Life

Quickmast 201EJ has a shelf life of 12 months from date of manufacture if stored in unopened, undamaged, sealed containers and stored under good conditions.

Cautions

Health and Safety

Consult the appropriate Material Safety Data Sheet prior to using Quickmast 201EJ.

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

Note

We endeavor to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, due to the fact that we have no direct or continuous control over where or how the products are applied, DCP cannot accept any liability either directly or indirectly arising from the use of DCP products, whether or not in accordance with any advice, specification, recommendation or information given by us.