Strongcoat EP Mortar

High strength solvent-free epoxy mortar



DESCRIPTION

Strongcoat EP Mortar is a three-component, solvent-free and high strength epoxy mortar designed primarily for use in construction and renovation work.

Strongcoat EP Mortar is supplied in a grey concrete colour to match existing concrete substrates. Due to its well graded filler component, Strongcoat EP Mortar 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.
- » Non-shrink repairing and bedding mortar.
- Water impermeable.
- Can be applied on vertical and horizontal surfaces.

METHOD OF USE

SUBSTRATE 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).

PRIMING

Surfaces must be primed with Strongcoat Primer prior to application of Strongcoat EP Mortar. 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.

TECHNICAL PROPERTIES:

Colour: Natural or grey

Mixed density: $1.80 \pm 0.10 \text{ g/ml}$

Pot life: 60 min

Compressive strength:

BS 6319-2

≥ 55 N/mm² @ 7 days

Flexural strength

BS 6319-3

≥ 20 N/mm² @ 7 days

Overcoating time: ≈ 24 hr @ 25°C

Full chemical cure: 7 days @ 25°C

VOC: ≤ 50 g/ltr

ASTM D2369 (comply with LEED)

Alternatively, the mixed resin of Strongcoat EP Mortar (Base + Hardener) can be used for priming purposes at a rate of 0.2 to 0.25 kg/m², achieving a dry film thickness of approximately 175 to 225 microns.

Strongcoat EP Mortar should be applied directly after the application of the primer and before the primer starts to gel on the substrate.

MIXING

Strongcoat EP Mortar 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

Strongcoat EP Mortar 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 a suitable solvent. If formwork or shuttering is to be used, a suitable release agent should be applied to the formwork to prevent the Strongcoat EP Mortar adhering to it.

CLEANING

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

PACKAGING

Strongcoat EP Mortar is available in 22.5 kg kits.

Kits of Strongcoat EP Mortar (Base + Hardener) for priming purposes are available in various sizes upon request.

SPECIFIED THICKNESS RANGE

Strongcoat EP Mortar can be applied horizontally with a thickness ranging from 5 to 50 mm. The maximum thickness refers to a single layer to ensure full compaction. For deeper applications, the material should be built up in successive layers.

When applied vertically, the product may be utilized at lower thicknesses to suit the requirements of the application.

YIELD

Approximately 12.5 litres per 22.5 kg kit.

STORAGE

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

SHELF LIFE

Strongcoat EP Mortar has a shelf life of 12 months from date of manufacture if stored in unopened, undamaged, sealed containers and stored under good conditions

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

CAUTIONS

HEALTH AND SAFETY

Consult the appropriate Material Safety Data Sheet prior to using each product.

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- >> Flooring systems.
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- » Structural strengthening.

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Not

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