

Quickmast 350MLS

Solvent free epoxy lining and benching mortar



Description

Quickmast 350MLS is a three component solvent-free lightweight epoxy mortar, designed principally for use with maximum chemical and abrasion resistance for protection of concrete and other substrate in sewage tanks and manholes.

The lightweight graded filler system along with thixotropic additives, allows lining for high build applications particularly in vertical and overhead situations.

When used in conjunction with Strongcoat Primer ML the product provides excellent adhesion to concrete materials. When finished correctly, Quickmast 350MLS provides an impermeable layer with good resistance to abrasion, weathering and chemical attack.

Quickmast 350MLS has a strength that exceeds normal concrete strength, the cured layer is tough, resilient and gives excellent resurfacing and repair system.

Quickmast 350MLS is supplied in a grey colour to match existing concrete substrates.

Quickmast 350MLS application areas include, lining and benching manholes, sewage tanks, and all similar structures which require impervious mortar or lining to achieve maximum chemical resistance.

Method of Use

Surface Preparation

The surface must be structurally sound, free from oil, grease and other forms of contamination. Concrete should be surface dry and suitably prepared either by scabbling or grit blasting to remove any surface laitance. Steel surfaces should be grit blasted to remove all rust and scale. (See the DCP Guide to Surface Preparation for further details).

Priming

Substrates should be primed with Strongcoat Primer ML. The primer should be applied so that the surface is thoroughly wet, ensuring there is a continuous film of resin over the surface. The Quickmast 350MLS should be applied whilst the primer is still tacky.

Technical Properties @ 25°C:

Solids:	100%
Mixed density:	1.85 ± 0.05 g/cm ³
Pot life:	100 - 120 min @ 15°C 50 - 60 min @ 25°C 20 - 30 min @ 35°C
Compressive strength: ASTM C579	> 70 MPa @ 1 day > 80 MPa @ 3 days > 90 MPa @ 7 days
Tensile strength: ASTM C307	> 7 MPa @ 7 days
Flexural strength: ASTM C580	> 29 MPa @ 7 days
Application thickness:	
Vertically	3 - 12 mm in a single layer
Horizontally	3 - 50 mm in a single layer
VOC: ASTM D2369	< 30 g/ltr (complies with LEED)

Mixing

Quickmast 350MLS comprises three components, a resin base, hardener and filler which are supplied preweighed in the correct proportions. Under no circumstances should part mixing be carried out.

Taking care to 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 obtained.



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Application

The Quickmast 350MLS should be applied and well compacted, by steel trowel. The lightweight mortar should be applied in successive layers, 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 ML applied.

Where necessary, the mortar is shaped to the required profile e.g. to form a cove and trowelled to a smooth finish. This operation will be aided by lightly wiping the trowel with Quickmast solvent.

Note: For horizontal application, ensure the applied layer is well tamped.

Working Time

Quickmast 350MLS has a working time of approximately 60 minutes at 20°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 350MLS should not be applied at temperatures below 5°C.
- ▲ It is recommended that material temperature is not exceeding 35°C, and substrate temperature is not exceeding 55°C.

Curing

Quickmast 350MLS should be allowed to cure for 24 hours at 20°C. 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 Quickmast solvent. Cured material can only be removed mechanically.

Chemical Resistance

Based on test method ASTM D1308, after 7 days immersion in the below chemicals:

Detergents	R
Hydrocarbon Fuels	R
Sodium Hydroxide 50%	R
Sodium Chloride 50%	R
Salt Water	R
Oleic Acid	R
Sulphuric Acid 15%	RS
Acetic Acid 5%	R
Citric Acid 10%	R
Tartaric Acid 10%	RS
Hydrochloric Acid 10%	RS
Nitric Acid 10%	RS

Packaging

Quickmast 350MLS is available in 16 kg pack size comprising resin base, hardener and filler component. Strongcoat Primer ML is available in 5 kg packs comprising resin base and hardener.

Specified Thickness Range

Vertically: 3 - 12 mm in a single layer.
Horizontally: 3 - 50 mm in a single layer.

Yield

Quickmast 350MLS: 2.8 - 3 m²/16 kg pack @ 3 mm thick.
Strongcoat Primer ML: 4.0 - 5.0 m²/liter.



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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.

Storage

Protect from frost and store under dry warehouse conditions at temperatures between 5°C and 35°C.

Shelf Life

Quickmast 350MLS has a shelf life of 24 months from date of manufacture if stored in unopened, undamaged, sealed containers and stored under good conditions.

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

Cautions

Health and Safety

Consult the appropriate Material Safety Data Sheet prior to using Quickmast 350MLS.

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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.

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