



奧迪美®

DB390

SEMI-DRY BEDDING MORTAR (RAPID-SETTING)

SCREED FOR RAPID RETURN TO SERVICE TILE BEDDING

PRODUCT DESCRIPTION

OPTIMIX DB390 is a high quality rapid hardening screed designed for semi-dry bedding method of installation.

OPTIMIX DB390 is simple to mix, easy to apply and has a reasonable working time to allow for rapid installation and quick return to service.

A slower setting version, **OPTIMIX DB390N** is also available for installations where fast setting is not important and/or longer adjustment time is beneficial.

Both **OPTIMIX DB390** and **OPTIMIX DB390N** are designed to be used in combination with **OPTIMIX DB391** for high strength and quick fixing of interior and exterior ceramic tiles.

The semi-dry nature of the screed creates an immediately stable base that can be levelled and quickly receive **OPTIMIX DB391** to achieve an easily adjustable level without introducing instability. This makes it ideal for all sizes and all types of ceramic tiles including larger and heavier tiles and installations subject to heavy and sustained footfall.



TYPICAL USAGE

- For rapid return to service floor tiling systems
- Ideal base for installing all dimensionally stable tiles including ceramic, porcelain, stone etc.
- Ideal for MiC factory and on site works

FEATURES AND BENEFITS

- Simple and Easy to Use
- Rapid Setting
- High Early and Ultimate Strength
- Consistent Quality & Performance
- Rigid and dimensionally stable
- Low VOC – complies with HK EPD regulation
- Local Production – can contribute to BEAM



TECHNICAL DATA

Mixing

Water Demand	2.5 – 3.0 L per 25 kg powder
Mixing Method	Forced Action Mixer e.g. Pan or Drum mixer
Mixing Time	Mix for 5 minutes or until homogeneous and lump-free

Pot Life ^{1) 2)}

Temp.	DB390	DB390N
@ 15°C	~ 60 minutes	~ 90 minutes
@ 25°C	~ 45 minutes	~ 60 minutes
@ 35°C	~ 25 minutes	~ 45 minutes

Performance ¹⁾

Product Characteristics	DB390	DB390N	Test Method
Compressive Strength at 1 day (MPa)	~ 25	> 10	BS EN 196-1
Compressive Strength at 7 days (MPa)	~ 35	~ 30	BS EN 196-1
Compressive Strength at 28 days (MPa)	> 40	> 40	BS EN 196-1
Setting Time (Initial) ²⁾	~ 2 hours	~ 3 hours	In-house Test Method
Linear Shrinkage (mm)	~ 0.4	~ 0.4	HKHA/MTS(2000), Pt D 2.1.21

Environmental Data

Volatile Organic Compounds (VOC) ³⁾	≤ 10 g/L
Potential BEAM points	Product is manufactured within 800km of Hong Kong project sites
Packaging Composition	Paper bags incorporating 40% recycled paper

Packaging & Yield ⁴⁾

Wet Density (kg/m ³)	2,200
Coverage (kg/mm/m ²)	2.2
Yield (per bag)	12.5 L
Packing Size (per bag)	25 kg
Shelf Life	6 months



Notes

- 1) Typical results achieved in laboratory conditions and for reference only. Actual results on site will vary with ambient, substrate and site conditions.
- 2) In-house specification and/or in-house test method.
- 3) VOC Test based on USEPA Method 24.
- 4) Approximate figures make no account for wastage of any kind.

INSTALLATION GUIDE

(Refer to Method Statement for more details)

SURFACE PREPARATION

Substrate must be clean and free from loose particles, oil, grease and other contaminants which may affect the bond.

Site concrete should be allowed to cure for a minimum of 4 weeks; the majority of shrinkage, drying, settlement and other movement of the substrate must have taken place before dry mix bedding and tiling works can begin.

Substrate profile should be such that the dry mix screed is applied no thinner than 10mm thick. The recommended maximum thickness per layer is 50mm. (see limitations)

Optimix always recommend using **OPTIMIX PE CEMENTITIOUS SLURRY PRIMER** to ensure the best bonding performance, however depending on the construction design and the site situation priming may not be necessary.

MIXING

Mix one bag of **OPTIMIX DB390** dry powder with 2.5 – 3.0 L of potable water to achieve the desired consistency. Mechanical mixing with a forced action pan mixer is recommended.

Apply the powder to the water and mix for about 5 minutes or until a lump-free homogeneous mix is achieved.

Do not add too much water, the mix is designed to be semi-dry so it can be placed, compacted and levelled to form a base for tile installation.

APPLICATION

Spread the semi-dry mixed material onto the substrate and compact using a wooden float or similar.

Level the material to the desired profile using a straight edge or wooden float and finish with the wooden float or other trowel accordingly.

Ideally the finished texture should be rough but level to within a few mm so as to receive the **OPTIMIX DB391 ADHESIVE SLURRY (RAPID-SETTING)** or other system finish.

FINISHING AND CURING

No special curing is required.

When used as part of the **DB390/DB391** rapid setting screed and tile installation system the **DB391 ADHESIVE SLURRY (RAPID-SETTING)** and tiles can be applied at any time after the **DB390** has been levelled.

LIMITATIONS

Applying **OPTIMIX DB390** in layers above 50mm thick may result in uneven compaction of the screed and in extreme cases this in turn can lead to differential shrinkage. If significant build up is required consider multiple layers with a bond coat between layers.

OPTIMIX DB390 SEMI-DRY BEDDING MORTAR (RAPID-SETTING) is water resistant but is not a waterproof barrier. When using porous natural stones such as marble Optimix strongly recommend installing a waterproof membrane to prevent long term moisture staining on the tile surface.

HEALTH AND SAFETY

OPTIMIX DB390 is alkaline in nature and can cause irritations to persons with sensitive skin. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective gloves and masks while handling the product. If contact with eyes, rinse immediately with plenty of clean water and seek medical advice. This product is non-toxic and is not flammable.

STORAGE

Store the products in a cool and dry place with the original unopened bags on pallets with plastic wrapping. Protect from direct sunlight, rainfall and exposure to high humidity conditions. Avoid excessive stacking of pallets. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging and reduce shelf life.

ALTERNATIVE PRODUCTS

Other similar products in the Optimix range include:

- **DB391** Adhesive Slurry (Rapid-Setting)
- **RM780** Repair Mortar (Rapid Setting)
- **SF828** Self-Levelling Screed (Overlayment)
- **Procrete**



Important Note: The information contained herein is, the best of our knowledge, true and reliable and is supported by the present state of our knowledge. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives as the conditions of use and any labour involved are beyond our control.



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