

S7011/9.2002

# ® PLANICRETE 50

## SYNTHETIC-RUBBER LATEX FOR CEMENT MIXES

### WHERE TO USE

- As an additive to improve mechanical and bonding characteristics of cement mixes for screeds, renders, etc.
- As an additive for high adhesion-strength cement bonding coats.

### Typical Applications

- High strength cement screeds and renders for interior and exterior use.
- Adhesive cement slurries for new mortar on old concrete.
- Adhesive cement slurries for bonding screeds and renders (also with MAPECEM/ or TOPCEM)
- Cement mortars for patching or reconstructing damaged parts and finishing surfaces on buildings and precast concrete elements.
- Mixed with KERABOND or KERAFLOOR as a 2-component tiling adhesive for walls or floors, respectively.

### TECHNICAL CHARACTERISTICS

PLANICRETE 50 is a water dispersion of a special synthetic elastomer, totally resistant to alkaline saponification. When mixed with aggregates and portland cement, improves their plasticity, water retention capability and trowellability in general.

After setting and final curing, cement mixes fortified with PLANICRETE 50 adhere better to all surfaces, become more water resistant, and have stronger resistance to flexural loads, abrasion and freeze-thaw cycles. These cement mixes are also more flexible, and have better chemical resistance to diluted acids and alkalis, salt solutions, and oils.

### PRECAUTIONS

- Do not use pure PLANICRETE 50 as a primer; always mix it with portland cement, or, if required, with MAPECEM or TOPCEM.
- Do not use mixes containing PLANICRETE 50 if the ambient temperature is lower than +5 °C or higher than +40 °C.
- After application in very warm or windy conditions, protect the surfaces from excessively fast drying.
- If mixes with PLANICRETE 50 are done in the concrete mixer, never mix for more than 3 minutes, to avoid entrapping excessive air.

### APPLICATION PROCEDURE

#### Preparing the Substrate

PLANICRETE 50 can be used for screeds, renders and levelling plasters on any cementitious surface that are solid, strong, sound and clean.

Crumbling and loose particles, dust, traces of oil or form release agents, and existing paint must be removed by careful sandblasting, brushing or high-pressure water jetting.

Substrates that are very dry should be wetted down to a saturated surface dry condition before screeding or rendering.

#### Preparing the Mix

##### Slurry coat

Pour PLANICRETE 50 into a clean container. Slowly add cement or MAPECEM/TOPCEM into the container and mix with a low speed mechanical mixer until a homogeneous fluid is obtained without lump. Please see the Table for the recommended mix ratio.

Apply the slurry onto the substrate with a brush or trowel followed immediately with the screed.

**Note:** Do not wait for the slurry to dry, as it may affect the adhesion of the screed to the substrate.

##### Splash coat

Pour PLANICRETE 50 into a clean container. Slowly add cement and sand into the container and mix with a low speed mechanical mixer until a homogeneous paste is obtained without lump. Please see the Table for the recommended mix ratio.

Apply the splash coat onto the substrate with a brush or sprayer. Allow the coat to dry before rendering.

##### Screed & render

Pour PLANICRETE 50 into a clean container, and dilute it with an equal part of water. Slowly add cement and sand into the container and mix with a low speed mechanical mixer until a homogeneous mortar is obtained without lump. Please see the Table for the recommended mix ratio.

Apply the mortar with a trowel to the required thickness.

For further details on mix manufacturing and consumption, see the enclosed table.

### Other mixes

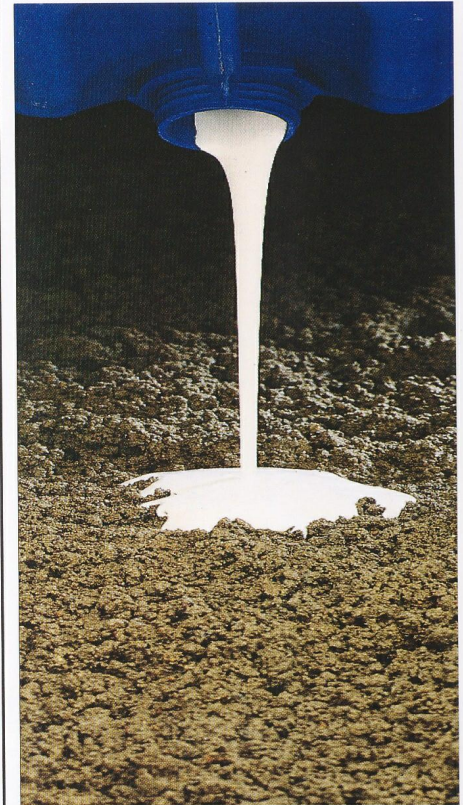
Follow the same procedure but substitute with materials and proportions specified in the **Dosage and Coverage Table**.

### Precaution

After application, especially in very warm or windy weather conditions, the mortars made with PLANICRETE 50 as additive must be protected and cured carefully to avoid fast water evaporation, which could cause surface cracking due to plastic shrinkage. Spray with water mist during the first two days of curing or protect the mortars with polyethylene sheet.

### Cleaning

All tools and hands may be cleaned with abundant water before setting of the mortar begins. After its hardening, cleaning can only be done by mechanical means.



**PACKING**

PLANICRETE 50 is available in drums of 25kg.

**MANUFACTURER**

MAPEI FAR EAST PTE LTD  
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Singapore 638383  
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Fax : (65) 68621012/68621013  
Email : mapei@singnet.com.sg  
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**WARNING**

Although the technical data and recommendations contained in this product report correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical applications. For this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from use of the product.

**FOR PROFESSIONAL USE ONLY****TECHNICAL DATA****PRODUCT IDENTITY:**

**Consistency:** runny liquid  
**Colour:** greenish white  
**Density:** 1.01g/cm<sup>3</sup>  
**pH:** >10  
**Solid content:** 18%  
**Storage life:** 12 months in original unopened packing  
**Health hazard:** no  
**Inflammability:** no

**APPLICATION DATA (at +23°C & 50% R.H.):**

**Mix ratio:** refer to the recommended mix ratio table  
**Application temperature range:** from +5°C to +40°C  
**Final cure time:** depending on mix ratio

**FINAL PERFORMANCES:**

**Composition of the mortar:**

Cement: portland	450 g
Aggregates: standard sand	1350 g
Additive: PLANICRETE 50	112.5 g
Water	112.5 g

**Specific gravity of mix:** 1.97 g/cm<sup>3</sup>

**Bonding strength**

- after 28 days in lab conditions: 1.2 MPa  
- after 7 days in lab conditions + 14 days at 70°C: 1.2 MPa  
- after 7 days in lab conditions + 21 days in water: 2.0 MPa  
Compressive strength after 28 days: 30.0 MPa  
Flexural strength after 28 days: 7.0 MPa

**TABLE of RECOMMENDED MIX-RATIO (by weight) & CONSUMPTION**

Application	PLANICRETE 50	Clean Potable Water	Portland Cement	Sand*	PLANICRETE 50 Consumption
Slurry coat 1	1	-	1.5	-	400 g/m <sup>2</sup>
Slurry coat 2	1	-	1.5 (MAPECEM / TOPCEM powder)		400 g/m <sup>2</sup>
Splash coat 1	1	-	1.5	1.5	400 g/m <sup>2</sup>
Screed / Render	1	1	4	12	100 g/m <sup>2</sup> per 1-mm thickness
Render 2	1	1	9 (NIVOPLAN powder)		160 g/m <sup>2</sup> per 1-mm thickness

\*Note: reduce the dilution water when the sand is wet.

Application	PLANICRETE 50	Clean Potable Water	KERABOND	KERAFLOOR	PLANICRETE 50 Consumption
Wall adhesive	1	-	3.6	-	1820 g/m <sup>2</sup> per 5-mm thickness
Floor adhesive	1	-	-	4.0	1970 g/m <sup>2</sup> per 5-mm thickness

**MAPEI QUALITY SYSTEM**

CERTIQUALITY  
No. 250/1



Stabilimento di Mediglia  
CERTIECO N.1230



CERTIQUALITY  
No. 1517



QMI  
No. 004157



DET NORSKE  
VERITAS



CERTIQUALITY  
NO. 3358

MAPEI - ITALIA

MAPEI - FRANCE

MAPEI INC - CANADA

MAPEI KTF. - HUNGARY

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