

ULTRAPLAN MARINE 900

One-component, low-density, fibre-reinforced, rapid-hardening, self-levelling cementitious mortar for internal decks on ships



WHERE TO USE

Ultraplan Marine 900 is used to level off internal decks on ships before laying down the floor coverings (tiles, resilients, resin, etc.).

Ultraplan Marine 900 is used in all areas not exposed to water. Apply a single layer from 3 mm to 20 mm thick.

TECHNICAL CHARACTERISTICS

Ultraplan Marine 900 is a grey powder made from a mixture of special rapid-setting and hydrating cement, selected lightweight aggregates, resin, fibres and special admixtures according to a formulation developed by the MAPEI laboratories.

Mix **Ultraplan Marine 900** with water before use. It forms hi-flow, rapid-hardening and drying, self-levelling mortar which is easy to apply with both hand tools and a mortar pump.

The steel decks must be treated with **Eco Prim Marine** before applying the mortar to guarantee a good bond.

RECOMMENDATIONS

- Do not add water to the mix once it starts to set.
- Do not add lime, cement, gypsum or any other type of substance.
- Do not use on external surfaces.
- Only apply the product on surfaces treated with **Eco Prim Marine**, which must be dry when the product is applied.
- Do not use the product at temperatures lower than +5°C.

APPLICATION PROCEDURE

Preparation of the substrate

Remove all traces of oil, grease, rust, paint, powder, loose material and any other substances which could affect adhesion from the surface.

Apply **Eco Prim Marine** on the clean, dry, de-dusted surface with a brush or roller. Pay close attention to the uniformity of the layer applied: the primer is black to make it easier to apply and to avoid areas with an insufficient amount of product. It is equally important not to apply too much primer: both conditions (too thin or too thick a film) may cause the **Ultraplan Marine 900** layer to detach.

When **Eco Prim Marine** is dry (after approximately 35-40 minutes) apply **Ultraplan Marine 900**.

Application

Pour approx. 5.7-6.0 litres of clean water into a clean container large enough to hold the mix. Pour a 15 kg bag of **Ultraplan Marine 900** into the water while mixing and keep mixing with an electric mixer at low-speed to form a smooth, lump-free, self-levelling mix. Prepare larger quantities of **Ultraplan Marine 900** in a mortar mixer.

Leave the mix to stand for 2-3 minutes, mix again and spread the mortar within its specified open time. The open time of the mortar will be shorter if the temperature is higher than +23°C. It is good practice to only mix quantities of **Ultraplan Marine 900** that will be used within 30-40 minutes.

Spread a single layer of **Ultraplan Marine 900** from 3 to 20 mm thick over **Eco Prim Marine** with a metal trowel. Check the consumption rate of the product during spreading to make sure the thickness required is applied.

Ultraplan Marine 900 may also be applied with a rendering pump.

If a second layer is required, we recommend waiting until the first one has set to foot traffic (approximately 3 hours at +23°C and never more than three hours after the set to foot traffic time). If this time limit is exceeded, another coat of **Eco Prim Marine** must be applied beforehand to help adhesion.

Various types of floor covering may be applied to **Ultraplan Marine 900**. Always adhere to the specified recoating time of the product (at +23°C and 50% R.H, referred to the maximum applicable thickness) :

- 3 days for resilient, textile, resin-based and wood coverings
- 1 day for ceramic coverings

These times vary depending on the thickness of mortar applied, the surrounding temperature and the level of humidity in the environment. It is recommended to check the level of residual moisture in the hardened layer of mortar to make sure it is compatible with the floor coating or dressing to be applied.

In case of resin floor coverings, a layer of **Mapedeck Epofloor** mixed with 20-30% by weight of quartz (particle size depending on the desired thickness) must be applied with a smooth steel trowel on a duly prepared and dust-free surface. Then sprinkle quartz with a particle size of no more than 0-0.5 mm onto the product while it is still fresh to saturation.

If the mortar needs to be applied over several days, it is necessary to create suitable joints with a two-component epoxy product (i.e. **Mapedeck Epofloor**).

CLEANING

Ultraplan Marine 900 may be cleaned from hands, tools and surfaces while still wet with water.

CONSUMPTION

The consumption rate for **Ultraplan Marine 900** is 0.9 kg/m² per mm of thickness.

PACKAGING

Ultraplan Marine 900 is available in 15 kg bags.

STORAGE

Ultraplan Marine 900 remains stable for 12 months if stored in a dry place. If stored for longer periods, it may take **Ultraplan Marine 900** longer to set, but without modifying its final characteristics.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency: fine powder

Colour: grey

Bulk density (g/cm³): 0.8

Dry solids content (%): 100

APPLICATION DATA (at +23°C and 50% R.H.)

Mixing ratio: 38-40 parts of water per 100 parts in weight of **Ultraplan Marine 900**

Applied thickness per layer (mm): from 3 to 20

Density of mix (g/cm³): 1.25

pH of mix: approx. 11

Application temperature: from +5°C to +35°C

Workability time: 20-30 mins.

Setting time: 45-60 mins.

Set to foot traffic: 3 hours

Recoating time:
– 1 day for ceramic floors
– 3 days for resilient, textile, resin-based and wood floor covering (for a thickness of 20mm)

FINAL PERFORMANCE DATA

Compressive strength (N/mm²):

– after 1 day: 8
– after 7 days: 10
– after 28 days: 16

Flexural strength (N/mm²):

– after 1 day: 2.5
– after 7 days: 3
– after 28 days: 4

Taber Test (H22, 500 g, 200 revs) (g): 2.5

Density of product after 28 days (g/cm³): 0.85-0.95

CERTIFICATION AND CLASSIFICATION

IMO MED: non combustible material

EMICODE: EC1 Plus - very low emission

WARNING

Although the technical details and recommendations contained in this product data sheet 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 application; 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 the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website

www.mapei.com

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The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.com.

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