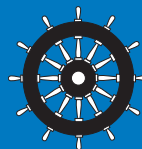




Mapedeck Design

Self-Leveling, Polyurethane, Seamless Flooring Resin



0474

DESCRIPTION

Mapedeck Design is a two-component, aliphatic, polyurethane-resin-based, self-leveling coating used to form a seamless floor on internal and external decks.

FEATURES AND BENEFITS

- Self-leveling formula designed for ease of application
- Formulated to create colored resin floors
- Chemical- and abrasion-resistant
- Easy to clean and maintain
- Available in NCS, RAL and custom colors upon request (contact a MAPEI representative for details)

INDUSTRY STANDARDS AND APPROVALS

- *Mapedeck Design* is certified as "surface materials and floor coverings with low flame-spread characteristics" according to IMO Res. 61(67) FTPC Annex 1, Parts 2 and 5 for applications up to 3/16" (5 mm) thick.

WHERE TO USE

- To form a seamless monolithic finish on interior and exterior decks

LIMITATIONS

- Do not install over substrates containing asbestos.
- Do not dilute *Mapedeck Design* with solvent or water.
- Do not apply over surfaces that are dusty or have stains.
- Do not expose the mixed product to sources of heat.

- Do not install over structural or expansion joints in the substrate.
- Do not install over wet surfaces or standing water.
- Do not install if the temperature is below 41°F (5°C) and/or the relative humidity (RH) is higher than 70%.
- Apply only if the temperature of the substrate is at least 5 degrees Fahrenheit (3 degrees Celsius) above the dew point.
- Use the product at between 41°F and 95°F (5°C and 35°C).

SUITABLE SUBSTRATES

- Properly primed, well-supported metal substrates
- Existing polyurethane-based screeds and leveling materials

Consult MAPEI Marine's Technical Services for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

- Substrates must be rigid, solidly fixed in place, clean and free of oil, grease, dirt, dust, corrosion, loosely bonded toppings and any other substance that would reduce or inhibit bond.
- No primer is required when *Mapedeck Design* is applied over new layers of polyurethane-based screed or leveling compound less than 48 hours old.
- For best results, sand, clean and remove all residue for newly applied and existing resin surfaces before application.
- Prepare steel surfaces by mechanical grinding, brushing or blasting according to SSPC SP2-3-11 (ISO 8501-1 ST2-ST3) to remove all oxidation. For best results, prepare steel surfaces to SSPC-SP6 (ISO 8501-1 SA2) surface quality or better.

- Prime all metal surfaces and existing, or old, polyurethane resin surfaces with *Mapedek Primer 200*, *Mapecoat Guard 100* or another approved MAPEI primer before application of *Mapedek Design*.
- If the substrate is aluminum or another surface not identified in this Technical Data Sheet (TDS), contact MAPEI Marine's Technical Services for additional information and which primer is best for your application.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

1. *Mapedek Design* is a two-component aliphatic polyurethane. Components A and B can separate in shipment, and each should be blended individually before being mixed together.
2. *Mapedek Design* can either be mixed as a full unit or proportioned by weight. For mixing less than a full unit, carefully measure by weight 3 parts of Component A per 1 part of Component B.
3. *Mapedek Design* can be accelerated using an approved catalyst component. Use only MAPEI's *PU Catalyst* and follow dosing instructions as stated in its TDS.

Note: MAPEI cannot be responsible for issues resulting from the use of *PU Catalyst* not in accordance with our written instructions, or from the use of non-approved catalysts.

4. *Maperubber EPDM 15* can be added to *Mapedek Design* in the selected color, or colors, to achieve the desired visual effect. Ratios of more than 10% to 15% by weight of *Maperubber EPDM 15* to *Mapedek Design* may yield an inconsistent appearance on the surface. Refer to the TDS for *Maperubber EPDM 15* for further details.
5. Add Components A and B of *Mapedek Design* in a clean mixing container and mix for 2 minutes with a 300- to 400-rpm drill and an appropriate mixing paddle.
6. Keep the mixing paddle completely immersed in the product. Do not trap air in the mix by whipping the product at high speed or by raising and lowering the mixing paddle rapidly while mixing.
7. Pour the entire mix into another clean container and mix again for about 2 minutes.
8. Apply the mix as soon as possible to the substrate, within 45 minutes from the start of the mixing process.
9. The working time of *Mapedek Design* will be affected by the product temperature, ambient temperature and substrate temperature. Temperatures above 73°F (23°C) will reduce the working time, and temperatures below 73°F (23°C) will extend the working time. Only mix as much product as can be applied in 45 minutes.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Apply *Mapedek Design* to the surface before the expiration of the working time with a notched steel trowel or gauge rake.
2. Use a spike roller to roll the surface of the freshly applied product to minimize the occurrence of pinholes.
3. If a second layer of *Mapedek Design* is required, wait until the product has reached final set and can support foot traffic (after about 16 hours).

CLEANUP

- Clean tools promptly with mineral spirits or denatured alcohol before the material hardens. Cured material can only be removed mechanically.

CURING

- Cool-weather conditions may extend curing or setting times.
- Warm-weather conditions may accelerate setting and curing times and may reduce working time.

PROTECTION

- Protect *Mapedek Design* from moisture or excessive heat (above 95°F or 35°C) during curing.
- Avoid walking on the installed surface for at least 24 hours after installation, depending upon temperature conditions. Protect the installation from traffic, dirt and dust from other trades until *Mapedek Design* is completely cured and finished.
- Do not expose *Mapedek Design* to rolling dynamic loads, such as forklifts or scissor lifts, for at least 7 days after installation.

Product Performance Properties

Laboratory Tests	Results
Density of mix	1.25 kg/L
Tensile strength – DIN 53504 7 days	725 psi (5 MPa)
Maximum elongation – DIN 53504	70%
Tear strength – ISO 34-1 7 days	15 N/mm

Shelf Life and Product Characteristics before mixing

	Component A	Component B
Physical state	Smooth paste	Liquid
Colors	NCS, RAL and custom colors available upon request	Transparent
Density kg/L	1.35	1.13
Viscosity at 73°F or 23°C	20,000 mPa·s	2,000 mPa·s
Shelf life	1 year when stored in original, unopened packaging at 73°F (23°C) and 50% RH	
Storage conditions	Store in a dry place and protect from freezing.	

Application Properties at 73°F (23°C) and 50% RH

Mixing ratio by volume, Component A to B	2.5 to 1
Mixing ratio by weight, Component A to B	3 to 1
Mixing time	2 minutes
Application temperature range	41°F to 95°F (5°C to 35°C)
Consistency of mix	Fluid
Working time	45 minutes
Time before dust-dry	2 to 4 hours
Time before allowing foot traffic	16 hours
Complete hardening time	7 days

Packaging

Size
Kit: 44.1 lbs. (20 kg)
Component A: Plastic bucket, 33.07 lbs. (15 kg)
Component B: Plastic bottle, 11.03 lbs. (5 kg)

Approximate Coverage*

Coverage per mixed kit	
Thickness	Coverage
3/16" (5 mm)	57.04 sq. ft. (5.3 m²)
Coverage by weight	
0.38 lbs. / sq. ft. / 1/16" thickness (1.25 kg / m² / 1 mm thickness)	

* Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions and installation practices.

Refer to the SDS for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement nor replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at

www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use,

and the user alone assumes all risks and liability. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**



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