

Mapeflex M100 TDK

Black, Polyurethane Caulking for Teak Decking



DESCRIPTION

Mapeflex™ M100 TDK is a one-component, black, polyurethane caulking and sealant specifically formulated for use by boat and ship building professionals to caulk the joints in internal and external marine teak wood flooring found on ships, yachts and boats. It cures into a strong elastic joint that can be sanded to finish and is resistant to salt water, air pollutants, UV and weather.

FEATURES AND BENEFITS

- Single-component formula
- Low-VOC and solvent-free
- UV- and weather-resistant
- Resistant to both fresh and sea water exposure
- Sandable

INDUSTRY STANDARDS AND APPROVALS

- *Mapeflex M100 TDK* is certified "low flame spread" according to IMO Res. A 799(19) and MSC Res. 61 (67) Annex 1, Part 1 and Annex 2.

WHERE TO USE

- Filling joints in teak wood deck in ships, yachts and boats
- External and internal decks

LIMITATIONS

- Do not install over surfaces that are frozen, are wet, have standing water or are under water.
- Do not install on surfaces contaminated with oil, grease, dirt, dust or any other substance that would inhibit good adhesion.
- Do not apply alcohol or an alcohol-based solvent over the surface of *Mapeflex M100 TDK* before it is completely dry.
- Use the product between 50°F and 104°F (10°C and 40°C).

SUITABLE SUBSTRATES

- Properly installed new marine teak wood decking
- Clean, existing marine teak wood decking in good condition

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

SURFACE PREPARATION

- All substrates must be clean and free of oil, grease, dirt or any other substance that would inhibit bond.
- Prime the joint with *Primer TDK* before application of *Mapeflex M100 TDK*. Follow instructions outlined in the Technical Data Sheet (TDS) for *Primer TDK*.

MIXING

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

- *Mapeflex M100 TDK* does not require mixing.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. MAPEI recommends performing a test application or constructing a preliminary mockup to ensure that the products selected will achieve the desired result and appearance.
2. Apply only over surfaces primed with *Primer TDK*. See the Technical Data Sheet for details on application.
3. For best results, apply when the ambient, sealant and substrate temperatures are between 59°F and 77°F (15°C and 25°C).
4. Applying the 300 mL cartridge
 - a. Place the cartridge in a suitable caulking gun.
 - b. Puncture the seal in the tip of the cartridge.
 - c. Attach the nozzle to the cartridge.
 - d. Cut the tip of the nozzle at a 45-degree angle at a location that will achieve the desired bead size.
 - e. Fill the joint completely with sealant to prevent trapping any air. It is better to overfill slightly so the surface of the sealant is convex (or "proud") above the surrounding deck.

Applying the 600 mL sausage

- a. Place the sausage pack in a suitable sausage style caulking gun.
- b. Snip off the closure clip on the sausage pack.
- c. Re-assemble the caulking gun with the nozzle.
- d. Cut the tip of the nozzle at a 45-degree angle at a location that will achieve the desired bead size.
- e. Fill the joint completely with sealant to prevent trapping any air. It is better to overfill slightly so the surface of the sealant is convex (proud) above the surrounding deck.

5. Finishing

- a. For a tooled finish: Tape the teak wood joint edges with a suitable masking tape before filling with *Mapeflex M100 TDK*. Fill the teak wood joint or seam with *Mapeflex M100 TDK* to a convex-appearing (proud) surface and while it is still wet. Smooth the joint with a suitable spatula removing any excess product. Remove the tape while *Mapeflex M100 TDK* is still wet.
- b. For a sanded finish: Fill the teak wood joint with *Mapeflex M100 TDK* to a convex-appearing (proud) surface and allow product to cure completely. Finish by sanding the teak wood deck and joints together to achieve the desired appearance. See the "Application Properties" chart below for the estimated curing time.

CLEANUP

- Clean tools promptly before material hardens with *Ultrabond® Urethane Cleaner* or another appropriate solvent. Cured material can only be removed mechanically.

CURING

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

PROTECTION

- Protect *Mapeflex M100 TDK* from rain, direct sunlight and excessive heat during curing.
- Avoid walking on the installed surface for at least 1.5 to 2 hours after installation, depending upon temperature and humidity conditions.
- Protect the installation from traffic, dirt and dust from other trades until *Mapeflex M100 TDK* is completely cured.

Product Performance Properties

Laboratory Tests	Results
Shore A hardness, 7 days	40
Elongation at failure, 28 days – ISO 37, Type 3	700%
Tensile strength, 28 days – ISO 37, Type 3	290 psi (2 MPa)
Tear strength, 28 days – ISO 34	10 N/mm
UV resistance – ASTM C923	Excellent
Service temperature	-54°F to 212°F (-48°C to 100°C)

Shelf Life and Product Characteristics

Shelf life	1 year when stored in original, unopened packaging at 73°F (23°C) and 50% relative humidity (RH)
Storage conditions	Store in a cool, dry location
Composition	Polyurethane
Curing mechanism	Moisture-curing
Physical state	Caulk
Color	Black
Density before curing	1.30 +/- 0.05 kg/L
Dry solids	100%
Thixotropy	Excellent

Application Properties

at 73°F (23°C) and 50% RH

Temperature range for application	50°F to 86°F (10°C to 30°C)
Dust-dry	100 minutes
Curing time	
At 3 mm thickness	24 hours
At 4 mm thickness	48 hours
At 9 mm thickness	7 days

Packaging

Size
300 mL cartridge (case of 12)
600 mL sausage pack (case of 20)

ADDITIONAL INFORMATION

Refer to the Safety Data Sheet 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).

WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

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.**

CONTACT INFORMATION

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For the most current product data and BEST-BACKEDSM warranty information,
visit www.mapei.com.
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