

Mapeflex M200 AS and Mapeflex M200 AS-LV

Multipurpose Marine Adhesives and Sealants



DESCRIPTION

Mapeflex® M200 AS is a one-component, solvent-free, silane-polyurethane-based adhesive and sealant formulated for use in marine applications aboard boats, yachts and ships. It forms a vibration- and weather-resistant seal on both internal and external applications. *Mapeflex M200 AS* is thixotropic, and it is available in the low-viscosity version *Mapeflex M200 AS-LV*.

FEATURES AND BENEFITS

- Single-component, silane-polyurethane formulas
- Low in VOCs and solvent-free
- UV- and weather-resistant
- Resistant to fresh- and sea-water exposure
- Excellent adhesion to most materials commonly used in the marine industry
- Available in White, Black, 111 Grey, 130 Jasmine, 133 Sand Beige and 3540 Beige
- Available in thixotropic and low-viscosity consistencies
- Paintable surface

INDUSTRY STANDARDS AND APPROVALS

- *Mapeflex M200 AS* and *Mapeflex M200 AS-LV* are certified as “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

- Adhesive and sealant for boats, yachts and ships
- Internal and external decks

LIMITATIONS

- Do not install over surfaces that are frozen, are wet, have standing water or are immersed.
- Do not install on surfaces contaminated with oil, grease or other substances that would inhibit good adhesion.
- Do not install over weak or dusty surfaces.
- Do not apply *Mapeflex M200 AS* or *Mapeflex M200 AS-LV* at temperatures below 41°F (5°C).
- Do not apply alcohol or other alcohol-based solvents over the surface of *Mapeflex M200 AS* or *Mapeflex M200 AS-LV* before it is completely dry.
- For best results, use the product at between 50°F and 104°F (10°C and 40°C).

SUITABLE SUBSTRATES

- Most substrate materials commonly used in the building and maintaining of boats, yachts and ships

Consult the MAPEI Marine Technical Services Department for installation recommendations regarding questions on substrates.

SURFACE PREPARATION

- All substrates must be dry, clean and free of oil, grease, dirt and any other substance that would inhibit bond.
- Prime porous surfaces with *Primer FD* before application of *Mapeflex M200 AS* or *Mapeflex M200 AS-LV*, following the instructions outlined in the Technical Data Sheet (TDS) for *Primer FD*.

MIXING

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

- *Mapeflex M200 AS* and *Mapeflex M200 AS-LV* do not require mixing.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Perform a test application in an inconspicuous area or construct a preliminary mockup to ensure that the product selected will achieve the desired result and appearance.
2. For best results, apply when the ambient, sealant and substrate temperatures are between 59°F and 77°F (15°C and 25°C).

- 3. For expansion and contraction joints: When used to seal or fill expansion or contraction joints, *Mapeflex M200 AS* or *Mapeflex M200 AS-LV* must only bond to the sides of the joint. This will require the use of a bond-breaking tape at the bottom of the joint and, when needed to control the depth, the use of a closed-cell polyethylene backer rod. See the following chart for guidelines on the recommended ratio of width to applied depth.
- 4. For filling joints with a 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. Then cut the tip of the nozzle at a 45-degree angle at a location that will achieve the desired bead size.
 - d. 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. For filling joints with a 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. Then cut the tip of the nozzle at a 45-degree angle at a location that will achieve the desired bead size.
 - d. 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.
- 6. For a tooled finish:
 - a. Tape the joint edges with a suitable masking tape before filling with *Mapeflex M200 AS* or *Mapeflex M200 AS-LV*.
 - b. Fill the joint or seam with *Mapeflex M200 AS* or *Mapeflex M200 AS-LV* completely to a convex ("proud") appearance.
 - c. While the joint or seam is still wet, smooth it with a suitable spatula, removing any excess product. Remove the tape while *Mapeflex M200 AS* or *Mapeflex M200 AS-LV* is still wet.

Width of Joint	Depth of Sealant
Up to 3/8" (10 mm)	Equal to joint width
3/8" to 3/4" (10 to 19 mm)	3/8" (10 mm)
More than 3/4" (19 mm)	Half of the joint width

CLEANUP

- Before the material hardens, clean tools promptly with *Ultrabond® Urethane Cleaner* or an 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 M200 AS* or *Mapeflex M200 AS-LV* 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 M200 AS* or *Mapeflex M200 AS-LV* is completely cured.

Product Performance Properties

for *Mapeflex M200 AS* and *Mapeflex M200 AS-LV*

Laboratory Tests	Results
Shore A hardness, at 7 days	45 +/- 3
Elongation at failure, at 28 days – ISO 37, Type 3	400%
Tensile strength, at 28 days – ISO 37, Type 3	220 psi (1.52 MPa)
Tear strength, at 28 days (ISO 34)	1,015 psi (7 MPa)
UV resistance – ASTM C923	Excellent

Shelf Life and Product Characteristics

for *Mapeflex M200 AS* and *Mapeflex M200 AS-LV*

Shelf life	1 year when stored in original, unopened packaging at 73°F (23°C) and 50% relative humidity (RH)
Service temperature	41°F to 95°F (5°C to 35°C)
Storage conditions	Store in a dry place
Physical state	Thixotropic paste (<i>Mapeflex M200 AS</i>); Flowable (<i>Mapeflex M200 AS-LV</i>)
Thixotropy	Excellent (<i>Mapeflex M200 AS</i>); N/A (<i>Mapeflex M200 AS-LV</i>)
Composition	Silane-terminated polymer
Curing mechanism	Moisture-curing
Colors	Black and white
Density before curing	1.50 +/- 0.05 kg/L
Dry-solids content	100%
EMICODE	EC1 Plus – very low emission

Application Properties

at 73°F (23°C) and 50% RH for *Mapeflex M200 AS* and *Mapeflex M200 AS-LV*

Temperature range for application	50°F and 104°F (10°C and 40°C)
Time until dust-dry	25 minutes
Curing time (by application thickness)	
3 mm	24 hours
4 mm	48 hours
8.5 mm	7 days

Packaging*

for *Mapeflex M200 AS* and *Mapeflex M200 AS-LV*

Joint Width and Depth	300 mL Cartridge	600 mL Sausage Pack
3/16" x 3/16" (4.5 x 4.5 mm)	39.4 lin. ft. (12 lin. m)	78.7 lin. ft. (24 lin. m)
3/8" x 3/8" (10 x 10 mm)	9.84 lin. ft. (3 lin. m)	19.7 lin. ft. (6 lin. m)
9/16" x 3/8" (14 x 10 mm)	6.56 lin. ft. (2 lin. m)	13.1 lin. ft. (4 lin. m)
3/4" x 3/8" (19 x 10 mm)	4.92 lin. ft. (1.5 lin. m)	9.84 lin. ft. (3 lin. m)
1" x 1/2" (2.5 cm x 12 mm)	3.28 lin. ft. (1 lin. m)	6.56 lin. ft. (2 lin. m)
1-1/8" x 9/16" (2.9 cm x 14 mm)	1.97 lin. ft. (0.6 lin. m)	4.27 lin. ft. (1.3 lin. m)

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

ADDITIONAL INFORMATION

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).

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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