

Mapesil T Plus

100%-Silicone Sealant with Enhanced Adhesion for Heavy Traffic and Expansion/Movement Joints



DESCRIPTION

Mapesil® T Plus is a professional-grade, 100%-silicone sealant with enhanced adhesion for use on multiple substrates. This product is specifically formulated for heavy traffic and expansion/movement joints exceeding both ASTM and ANSI standards.

FEATURES AND BENEFITS

- Color-matched to MAPEI's color palette
- Formulated to a low sheen to match the gloss of grout joints*
- Rated for heavy-traffic and expansion/movement joints
- 100% silicone for use in interior, exterior, wet and dry installations from Res 1 to Res 7 and Com 1 to Com 7 as detailed per TCNA Environmental Exposure Classifications
- Excellent elongation and flexibility for use in both change-of-plane and joint applications in tile or stonework
- Can be used in pools and spas. 7 days of curing time is needed before pool filling. The resistance of Mapesil T Plus to chlorine is dependent on the pH value of the water and the amount of free chlorine. A pH value between 6.5 and 7.6 is required, and the free chlorine should remain less than 5 mg per L (5 ppm).
- Helps to prevent mold and mildew

* Note that the color Jet Black has a more satin/shiny finish.

INDUSTRY STANDARDS AND APPROVALS

- ASTM: Meets ASTM G21. Meets C920, Type S, Grade NS, Class 25, Use T1, T2, NT, I, M, G, A and O, and conforms to C794 adhesion properties (#23 Clear color meets ASTM C920, Type S, Grade NS, Class 50, Use NT).
- TCNA: Meets EJ171 requirements for heavy traffic and expansion/movement joints

WHERE TO USE

- Interior/exterior residential and commercial installations from Res 1 to Res 7 and Com 1 to Com 7 as detailed per TCNA Environmental Exposure Classifications
- As a flexible barrier/filler between horizontal/vertical surfaces and any other changes of plane
- Expansion joints in non-traffic, normal-traffic and heavy-traffic areas
- Countertops, vanities, sinks, bathtubs, showers, steam rooms, pools, spas, backsplashes and fixtures

LIMITATIONS

- Application temperature range is 40°F to 90°F (4°C to 32°C). For some installations, additional time beyond 24 hours may be required before *Mapesil T Plus* reaches a hardness where light fingernail pressure does not leave an indentation.
- *Mapesil T Plus* may stain porous materials. Test a small area for staining or leaching before use to ensure compatibility with such porous materials as natural stone.
- *Mapesil T Plus* should not be used in areas where material may come in contact with plasticizers or other materials that will prevent or diminish adhesion.
- Do not use *Mapesil T Plus* for structural glazing.
- *Mapesil T Plus* is not for use in expansion/movement joints with greater than 25% movement. The exception is #23 Clear color, which can be used in joints with up to 50% movement.
- For joints with depth greater than 1/2" (12 mm), the caulking depth must be controlled by a closed-cell backer rod.
- Joint widths should not exceed 1" (2.5 cm).
- Although *Mapesil T Plus* is color-matched to MAPEI's grout color palette, expect a slight variation in color due to the difference in composition between materials.
- Not paintable; painting should be done before installation of *Mapesil T Plus*.

SUITABLE SUBSTRATES

- *Mapesil T Plus* adheres to most ceramic tile, porcelain, natural stone, glass, masonry, concrete, brick, wood, aluminum, fiberglass, vinyl, plastic, and properly prepared copper and brass.

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

SURFACE PREPARATION

- Surfaces must be structurally sound, stable, dry, clean and free from dust, oil, grease, paint, gypsum patch, flooring adhesive, tar, wax, sealers, curing compounds, form release agents, laitance, loose particles and foreign substances that could reduce or impair adhesion.
- All installation areas should be thoroughly cleaned mechanically or with a solvent as necessary and be firmly set before caulking. Typically, this is done 24 to 48 hours after tile installation.
- Remove all traces of loose paint, loose particles, residue and cement particles by mechanical means.
- Remove mildew by scrubbing with a mixture of 4 U.S. oz. (118 mL) of trisodium phosphate (TSP), 1 U.S. qt. (946 mL) of liquid bleach and 3 U.S. qts. (2.84 L) of warm water. Protect eyes and hands by wearing goggles and water/chemical-resistant gloves. Thoroughly rinse and allow the surface to dry completely before caulking.

- Vacuum out joints and wipe them clean with a damp rag.

See the “Surface preparation requirements” reference guide in the Tile & Stone Installation Systems section of MAPEI’s Website.

MIXING

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

- *Mapesil T Plus* comes ready to use.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Caulking should take place after grout in the installation area has set.
2. For a clean, straight and neat sealant joint, mask both sides of the joint with masking tape.
3. Do not open the *Mapesil T Plus* cartridge until preparatory work has been completed. Cut nozzle tip to the desired bead size at a 45-degree angle.
4. It will be necessary to insert a sharp tool (such as a screwdriver) inside the nozzle tip to puncture the protective aluminum foil seal inside the cartridge.
5. Apply *Mapesil T Plus* with a caulking gun using steady, even pressure to completely bridge joints. Completely fill joints with sealant.
6. Tool the sealant using a “jointing tool” or the back of a spoon dipped in a solution of soapy water, to create a concave joint shape with a neat appearance. Do not wait more than 5 minutes before tooling the grout joint, as this is a fast-drying sealant.
7. Immediately after tooling the sealant, remove masking tape and wipe off any sealant from the face of the veneer with a paper towel before the material skins over. If the material skins over, excess sealant may need to be removed before curing with a commercial solvent.
8. Cured sealant will require mechanical means to remove.

PROTECTION

- Protect the installation area from light foot traffic and water exposure for at least 24 hours.
- Protect from heavy traffic for 3 to 5 days.

Product Performance Properties

Laboratory Tests	Results
VOCs (Rule #1168 of California's SCAQMD)	50 g per L or less
Slump (ASTM C639)	None
Tack-free time (ASTM C679)	10 to 20 minutes
Tooling time	5 to 10 minutes
Shore "A" hardness (ASTM C661)	35 or greater (Exception: 17 to 19 for #23 Clear color)
Joint movement (ASTM C920)	+/-25% (or +/- 50% for #23 Clear color)
Elongation at break (ASTM D412)	410%
Weatherability (Accelerated Weathering Tester QUV)	No change after 10,000 hours: Passes
Flexibility (ASTM C734)	Excellent: Passes at -15°F (-26°C)
Freeze/thaw stability: 0°F/77°F (-18°C/25°C) at 24 hours (ASTM C731)	Passes 5 cycles

Shelf Life and Application Properties

at 73°F (23°C) and 50% relative humidity

Shelf life	18 months when stored in original, unopened packaging
Full cure	28 days depending on ambient temperature, substrate temperature and humidity
Service temperature range	-60°F to 400°F (-51°C to 204°C)
Colors	Available in 43 colors. Refer to MAPEI's grout/caulk color palette. Sample color chips are available upon request.

Packaging

Size

Cartridge: 10.1 U.S. oz. (299 mL)

Approximate Coverage**

per 10.1 U.S. oz. (299 mL)

Joint Size	Coverage
3/8" x 3/8" (10 x 10 mm) depth and width	11 lin. ft. (3.35 m)
1/4" x 1/4" (6 x 6 mm) depth and width	25 lin. ft. (7.62 m)

** Coverage shown is for estimating purposes only. Actual jobsite coverage may vary depending on the joint size and application procedure.



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) 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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Edition Date: October 17, 2023 MK 3000408 (23-1145)

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

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