

Mapecoat TNS PU 3-in-1

Versatile, Two-Component, Urethane Patch, Adhesive and Sealant



DESCRIPTION

Mapecoat™ TNS PU 3-in-1 is a versatile, high-performance, two-component, fast-set urethane. It is designed to be combined with sand to form a durable patch for depressions and cracks on asphalt and concrete sport surfaces before installation of *Mapecoat TNS* systems. *Mapecoat TNS PU 3-in-1* is also a high-performance adhesive and waterproofing sealer for the *Mapecoat TNS Comfort* and *Comfort Elite* athletic-court surfacing systems.

FEATURES AND BENEFITS

- Performs 3 functions (patch, adhesive and sealant), which reduces the products needed on the jobsite
- Ideal for patching deep depressions and wide cracks
- Fast-curing
- Ideal viscosity for bonding and sealing of rubber mats used in athletic-court systems
- Excellent weather resistance

WHERE TO USE

- For patching depressions 4" (10 cm) deep and cracks 1.5" (3.8 cm) wide on asphalt and concrete substrates
- For leveling asphalt and concrete substrates
- For gluing down mat-based, cushioned athletic-court systems
- For sealing the top of rubber mats in mat-based, cushioned athletic-court systems

LIMITATIONS

- Do not apply over damp or wet surfaces.
- Apply when the ambient and surface temperatures are between 32°F and 95°F (0°C and 35°C). Temperatures greater than 95°F (35°C) will greatly reduce the pot life.

SUITABLE SUBSTRATES

- Concrete that is at least 28 days old
- Asphalt that has been exposed to at least 15 to 25 sunshine days at above 73°F (23°C)

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

SURFACE PREPARATION

- For base construction and paving substrate specifications, refer to guidelines from the American Sports Builders Association (ASBA), United States Tennis Association (USTA), International Tennis Federation (ITF), National Asphalt Pavement Association (NAPA) and American Concrete Institute (ACI).
- All substrates must be structurally sound, dry, solid and stable. Substrates must be clean and free of dust, dirt, oil, grease, paint, curing agents, concrete sealers, loosely bonded toppings, loose particles, old coating residues, and any other substance or condition that may prevent or reduce adhesion.

MIXING

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

1. Parts A and B are packaged to exact quantity ratios for maximum performance.
2. Protect the mixing area from spills.
3. Pour all material out of both Part B containers into Part A. (The kit includes two Part B containers.) After pouring, place the caps back on the Part B containers and turn the containers upside-down to ensure that all remaining material drains into the caps. Pour the remaining material into Part A. Always mix complete units. Do not add other materials to this mixture (except sand if it is used for patching).
4. Use a low-speed mixer (< 300 rpm) to ensure that the material is mixed thoroughly to a smooth, homogenous paste consistency (generally within 5 minutes).
5. If the product is used for patching, add 25 lbs. (11.3 kg) of #60 to #80 mesh silica sand and mix with a low-speed mixer until the mixture is homogenous.

PRODUCT APPLICATION – AS A PATCH

Read all installation instructions thoroughly before installation.

1. Immediately after mixing, apply the patch to the substrate using a trowel.
2. Depressions up to 4" (10 cm) deep and cracks up to 1.5" (3.8 cm) wide may be filled with *Mapecoat TNS PU 3-in-1*.



3. Smooth to a finish with a flat-edge trowel. The patch edges should be feathered to allow a smooth transition.
4. Patches must be allowed to fully cure before application of the next coating.

PRODUCT APPLICATION – AS AN ADHESIVE

Read all installation instructions thoroughly before installation.

1. Butterfly the mats open to expose the substrate under each half.
2. Use a 1/8" x 1/8" x 1/8" (3 x 3 x 3 mm) V-notched steel trowel to apply *Mapecoat TNS PU 3-in-1* uniformly to the substrate immediately after mixing.
3. Fold both sides of the mat into the wet adhesive, butting the mats against each other along the entire length.
4. Lift the mat material to confirm more than 90% adhesive transfer to the backing.
5. Use a 100-lb. (45.4-kg) roller to press the mats into the adhesive, ensuring that any air bubbles are removed.

PRODUCT APPLICATION – AS A SEALER

Read all instructions thoroughly before installation.

1. **Mats must have sealer applied on the same day that they are glued in order to avoid moisture issues.**
2. Using a flat standup trowel, apply one coat of *Mapecoat TNS PU 3-in-1* to seal all uncoated rubber mat surfaces. Run a windrow two mats (10 feet or 3.05 m) wide and coat those two mats the length of the court before switching direction and coating the next two mats. This method avoids having the material sitting for too long on the surface and makes application much quicker and less difficult.
3. Allow a small amount of excess material to run off the edges of the mat and wipe the edge with the trowel blade, to ensure full sealing of the outer edge of the system.
4. The first application of *Mapecoat TNS Base Coat Binder* (and *Mapenet™ Reinforced* if installing a *Mapecoat TNS Comfort Elite* system) should occur after 4 to 6 hours, but within 24 hours of the sealer application.

CLEANUP

- Immediately use *Ultrabond® Urethane Cleaner* or mineral spirits to clean spills, smudges and tools while the product is still fresh/wet. Once *Mapecoat TNS PU 3-in-1* has dried, it must be removed mechanically.

CURING

- As a patch: Curing time will depend on the depth of the patch. The minimum curing time for a shallow patch (less than 1" or 2.5 cm) is 12 hours. Deep patches (greater than 1" or 2.5 cm) require a curing time of up to 24 hours.
- As an adhesive: Under normal conditions, mats will be ready for sealer application in 2 to 4 hours.
- As a sealer: Under normal conditions, each coat of sealer will take 4 to 6 hours to cure sufficiently to recoat.

PROTECTION

- Do not apply if rain or temperatures below 32°F (0°C) are expected within 12 hours of the scheduled installation.
- Do not expose to traffic or rolling loads for at least 12 hours.

- Protect final application from heavy traffic for at least 24 hours.

Product Performance Properties

Laboratory Tests	Results
Solids content	
Part A	100%
Part B	100%
VOCs (Rule #1168 of California's SCAQMD)	2 g per L
Flash point	> 200°F (93°C)

Shelf Life and Product Characteristics

before mixing

Polymer type	Polyurethane
Shelf life	1 year when stored in original, unopened packaging at 73°F (23°C) in a dry area
Storage conditions	40°F to 90°F (4°C to 32°C)
Color	
Part A	Off-white
Part B	Amber
Mixture	Light gray

Protect containers from freezing in transit and storage.

Application Properties

Curing time when used as a patch	12 to 24 hours
Setting time when used as an adhesive	2 to 4 hours
Time before sealer recoats	4 to 6 hours
Full curing time for final application	24 hours

Approximate Coverage*

Function	Typical Application Tool	Coverage
Patch (with 25 lbs. or 11.3 kg of sand added per kit)	Flat-edged hand trowel	Depends on size of crack/patch
Adhesive for rubber mat	1/8" x 1/8" x 1/8" (3 x 3 x 3 mm), V-notched trowel	45 to 50 sq. ft. per U.S. gal. (1.10 to 1.22 m ² per L)
Sealant for rubber mat	Flat-edged stand-up trowel	50 to 55 sq. ft. per U.S. gal. (1.22 to 1.35 m ² per L)

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

Packaging

Size
Kit: 4 U.S. gals. (15.1 L)
Part A (one container): 3.48 U.S. gals. (13.2 L)
Part B (two containers): 0.24 U.S. gal. (9.08 mL)

ADDITIONAL INFORMATION

Refer to the Safety Data Sheet (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).

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

MAPEI Headquarters of North America

1144 East Newport Center Drive
Deerfield Beach, Florida 33442
1-888-US-MAPEI (1-888-876-2734) / (954) 246-8888

Technical Services

U.S. and Puerto Rico:

Flooring: 1-800-992-6273

Concrete and heavy construction: 1-888-365-0614

Canada:

1-800-361-9309

Customer Service

1-800-42-MAPEI (1-800-426-2734)

Edition Date: April 16, 2025 MK 3000472 (25-1114)

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

All Rights Reserved. © 2025 MAPEI Corporation.

