

# Mapecoat TNS Binder [NA]

Premium, Acrylic Color Coating



NORTH AMERICA [NA]

FOR PROFESSIONAL USE ONLY

## DESCRIPTION

*Mapecoat™ TNS Binder* [NA] is a 100%-acrylic latex compound that can be mixed with various sands to meet a variety of International Tennis Federation (ITF) pace ratings on indoor and outdoor sports surfaces. *Mapecoat TNS Binder* [NA] is a flexible coating product that can be used as a colored topcoat. It is part of the *Mapecoat TNS System*, which forms durable and comfortable playing surfaces.

## FEATURES AND BENEFITS

- Certified as ITF 3
- 29 standard colors
- ColorMap™ System Technology enables unlimited custom colors upon request.
- Because *Mapecoat TNS Binder* [NA] is available in lighter colors, it can reduce surface temperatures in hot conditions and allows more workability time for additional *Mapecoat TNS System* layers.
- Superior color-hiding coverage
- Superior elongation and flexibility
- Environmentally friendly

## WHERE TO USE

- As a colored topcoat for indoor and outdoor applications for *Mapecoat TNS* systems (Professional, Cushion, Reinforced and Comfort)
- As a colored topcoat over pre-coated, existing acrylic surfaces

## LIMITATIONS

- Concrete floors must be completely cured (at least 28 days) and free from hydrostatic pressure and alkaline conditions.
- Do not install when the moisture vapor emission rate (MVER) of the concrete substrate exceeds 8 lbs. per 1,000 sq. ft. (3.63 kg per 92.9 m<sup>2</sup>) per 24 hours, when using the anhydrous calcium chloride test (ASTM F1869).
- Do not install when the relative humidity of the concrete substrate exceeds 85% (ASTM F2170).
- Do not apply when rain is imminent.
- Do not apply over damp or wet surfaces.
- Apply only when the surface temperature is between 50°F and 140°F (10°C and 60°C).
- Do not apply if the ambient temperature is lower than 50°F (10°C).
- Do not apply if the level of ambient humidity is higher than 85%.

## SUITABLE SUBSTRATES

- Cured concrete (at least 28 days)
- Cured asphalt (in 15 to 20 sunshine days at above 73°F or 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 the American Sport Builders Association (ASBA), United States Tennis Association (USTA), International Tennis Federation (ITF), National Asphalt Pavement Association (NAPA) and American Concrete Institute (ACI) guidelines.
- All concrete substrates must be primed with *Mapecoat TNS Primer EPW*.
- The substrate 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.
- All defects (potholes, popouts and other large defects) must be leveled and treated accordingly before *Mapecoat TNS Binder* [NA] is applied.

## PRODUCT PREPARATION

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

- *Mapecoat TNS Binder* [NA] can be mixed with different grades and amounts of sand based on the intended usage. The most common grade is 70-80 mesh. Refer to the "Mixing Instructions" chart below for the recommended amounts of sand.
- The use of a low-speed mechanical mixer is recommended.

- *Mapecoat TNS Binder* [NA] with sand mixture must be diluted with water up to 30% according to the application method used. The mixture should be stirred until it reaches a homogeneous consistency. It is important to keep the mixture homogeneous by occasional remixing during the application process.

## PRODUCT APPLICATION

- Apply *Mapecoat TNS Binder* [NA] with a flexible rubber squeegee (50 or 70 durometers).

## DRYING TIME

- 3 to 4 hours at 73°F (23°C) and 50% relative humidity
- Low temperatures and high humidity will increase drying time.

## CLEANING

- Clean tools with water while the product is still fresh/wet.

## PACKAGING

- *Mapecoat TNS Binder* [NA] is available in pails measuring 5 U.S. gals. (18.9 L) and drums measuring 30 U.S. gals. (114 L) and 55 U.S. gals. (208 L).

### PROTECT FROM FREEZING.

### Product Performance Properties

| Laboratory Tests                                                                     | Results                                            |
|--------------------------------------------------------------------------------------|----------------------------------------------------|
| Density                                                                              | 10.02 lbs./gal. (approx. 1.202 g/cm <sup>3</sup> ) |
| Taber abrasion test – ASTM D4060                                                     |                                                    |
| CS-17 wheels, 1,000 cycles (mass loss)                                               | 100 mg                                             |
| Tensile strength – ASTM 2370                                                         |                                                    |
| After 7 days at +73°F (+23°C)                                                        | 60 psi (0.7 N/mm <sup>2</sup> )                    |
| Elongation at failure – ASTM 2370                                                    |                                                    |
| After 7 days at +73°F (+23°C), mixed with 70-mesh sand                               | 120%                                               |
| VOCs (Rule #1113 of California's SCAQMD)                                             | < 100 g per L                                      |
| Change in color after 2,000 hours' exposure to a Weather-Ometer – ASTM G155, Cycle 1 |                                                    |
| Pink (TNS 27)                                                                        | $\Delta E < 2.0$                                   |
| Lilac (TNS 11)                                                                       | $\Delta E < 2.0$                                   |
| Violet (TNS 12)                                                                      | $\Delta E < 1.5$                                   |
| Miami Purple (TNS 31)                                                                | $\Delta E < 0.5$                                   |

|                         |                  |
|-------------------------|------------------|
| Light Gray (TNS 1)      | $\Delta E < 0.5$ |
| Dark Gray (TNS 2)       | $\Delta E < 0.5$ |
| Black (TNS 25)          | $\Delta E < 1.0$ |
| Arena Yellow (TNS 34)   | $\Delta E < 1.5$ |
| Sunshine Yellow (TNS 4) | $\Delta E < 0.5$ |
| Ochre (TNS 5)           | $\Delta E < 0.5$ |
| Canyon Brown (TNS 26)   | $\Delta E < 1.5$ |
| Brown (TNS 6)           | $\Delta E < 0.5$ |
| Orange (TNS 9)          | $\Delta E < 1.0$ |
| Swiss Red (TNS 24)      | $\Delta E < 1.5$ |
| Light Red (TNS 23)      | $\Delta E < 1.0$ |
| Red (TNS 10)            | $\Delta E < 1.5$ |
| Paris Red (TNS 32)      | $\Delta E < 0.5$ |
| Rio Green (TNS 33)      | $\Delta E < 2.0$ |
| Dark Green (TNS 20)     | $\Delta E < 0.5$ |
| London Green (TNS 30)   | $\Delta E < 1.0$ |
| Forest Green (TNS 21)   | $\Delta E < 1.0$ |
| White (TNS 0)           | $\Delta E < 1.0$ |
| Light Blue (TNS 14)     | $\Delta E < 2.0$ |
| Sea Blue (TNS 15)       | $\Delta E < 1.5$ |
| Melbourne Blue (TNS 28) | $\Delta E < 1.5$ |
| Dark Blue (TNS 16)      | $\Delta E < 2.0$ |
| Sydney Blue (TNS 35)    | $\Delta E < 2.0$ |
| Night Blue (TNS 22)     | $\Delta E < 1.0$ |
| New York Blue (TNS 29)  | $\Delta E < 0.5$ |

## Shelf Life and Product Characteristics

before mixing

|                |                                                                    |
|----------------|--------------------------------------------------------------------|
|                |                                                                    |
| Shelf life     | 2 years when stored in original, unopened packaging at 73°F (23°C) |
| Physical state | Thick liquid                                                       |

## Mixing Instructions per Coat

| Product Amount                              | Water Amount                         | Sand Amount (70 to 80 mesh)      |
|---------------------------------------------|--------------------------------------|----------------------------------|
| 5 U.S. gals. or 18.9 L (50 lbs. or 22.7 kg) | 2 to 2.5 U.S. gals. (7.57 to 9.46 L) | 32 to 41 lbs. (14.5 to 18.6 kg)  |
| 30 U.S. gals. or 114 L (287 lbs. or 130 kg) | 12 to 15 U.S. gals. (45.4 to 56.8 L) | 200 to 250 lbs. (90.7 to 113 kg) |
| 55 U.S. gals. or 208 L (526 lbs. or 239 kg) | 22 to 28 U.S. gals. (83.3 to 106 L)  | 350 to 450 lbs. (159 to 204 kg)  |

## Approximate Coverage (undiluted)\*

| Number of coats | Coverage in sq. ft.<br>per U.S. gal. | Coverage in sq. yd.<br>per U.S. gal. | Coverage in m <sup>2</sup><br>per L |
|-----------------|--------------------------------------|--------------------------------------|-------------------------------------|
| First coat      | 160 to 170                           | 17.7 to 18.8                         | 3.9 to 4.1                          |
| Second coat     | 170 to 180                           | 18.8 to 20.0                         | 4.1 to 4.4                          |

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

## 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](mailto:sustainability_USA@mapei.com) (USA) or [sustainability-durabilite@mapei.com](mailto: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](http://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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### Customer Service

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For the most current product data and BEST-BACKED<sup>SM</sup> warranty information,  
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