Planiseal Traffic Coat FS

Fast-Setting, Epoxy Overlay for Vehicular and Pedestrian Traffic

DESCRIPTION

Planiseal® Traffic Coat FS is a fast-setting, moisture-resistant, 100%-solids, low-modulus, two-part, epoxy binder engineered for providing a skid-resistant overlay on elevated concrete slabs.

FEATURES AND BENEFITS

- Fast-setting to minimize traffic disruption
- Moisture-tolerant
- Low modulus to accommodate thermal movement in concrete
- 100%-solids and VOC-compliant
- Creates a decorative yet skid-resistant surface on concrete

INDUSTRY STANDARDS AND APPROVALS

- ASTM C881-10: Type III; Grade 1, Class B and C
- ACI 548.8M-07 for Type EM (epoxy multi-layer) polymer overlay for bridge and parking decks
- ACI 548.9M-08 for Type ES (epoxy slurry) polymer overlay for bridge and parking decks
- Meets AASHTO-AGC-ARTBA Task Force 34, October 1995
- USDA-compliant

WHERE TO USE

- For interior/exterior, horizontal concrete surfaces
- For elevated, new and existing concrete bridges and decks
- Use to extend the service life of concrete decks subject to abrasion and chloride attack.
- Use to provide an attractive coating in parking garages and ramps.
- Use when rapid installation and quick turnaround times are required.

SUITABLE SUBSTRATES

- Properly prepared concrete at least 21 to 28 days old, sound, stable, and dry or slightly damp
- Elevated concrete slabs or decks

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

SURFACE PREPARATION

Reference ACI 548.8M-07, Specification for Type EM (Epoxy Multi-Layer) Polymer Overlay for Bridge and Parking Garage Decks.

- Surface must be concrete at least 21 to 28 days old, sound, stable and dry or damp (with no standing water).
- *Planiseal Traffic Coat FS* can be used as an epoxy mortar and as an effective material to repair spalls, potholes and cracks. Add up to 3 parts of dry sand with 1 part of *Planiseal Traffic Coat FS* until the desired consistency is achieved.
- Prepare surface by shotblasting or other engineer-approved means to achieve a concrete surface profile (CSP) of #5. Surface must be clean of all dust, laitance, grease, curing compounds, waxes and other contaminants that can interfere with proper bonding

MIXING

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

1. Precondition material to between 65°F and 85°F (18°C and 29°C) for optimal use.
2. Mix both Part A and Part B individually to ensure that all solids are evenly dispersed throughout each component.
3. Mechanically mix Part A with Part B at a ratio of 1 to 1 by volume, using a Jiffy-type mixer and low-speed variable drill at 400 to 600 rpm. Mix for 3 minutes until uniformly blended. Mix only the quantity that can be used within its pot life.
4. Metered mix ratio pumps can also be used, as long as the material is properly mixed when dispensed onto the substrate.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

For use as a broadcast overlay:

1. Apply the first coat of *Planiseal Traffic Coat FS* neat with a 3/16" (4.5 mm) notched squeegee at 1 U.S. gal. per 40 sq. ft. (0.98 L per m^2).
2. Broadcast select aggregate to refusal at about 11 lbs. per 10 sq. ft. (4.99 kg per 0.93 m^2). Select angular aggregate, grain quartz silica sand, Oklahoma flint rock or basalt having less than 0.2% moisture and that is free of dirt, clay, etc. The aggregate must have a minimum Mohs hardness of 7, unless otherwise approved by the engineer of record.
3. Allow the first coat to cure, in accordance with the "Curing Times" table below, and then remove excess aggregate. Do not open to traffic.
4. Apply a second coat of epoxy at 1 U.S. gal. per 20 sq. ft. (0.49 L per m^2).
5. Broadcast select aggregate into the second coat of epoxy at about 16 lbs. per 10 sq. ft. (7.26 kg per 0.93 m^2).
6. Allow to cure according to the "Curing Times" table below.
7. Remove excess aggregate by power-blowing, sweeping or vacuuming.
8. Open to traffic.

For use as an epoxy mortar:*

1. Slowly add up to 3 parts of oven-dried sand to 1 part of mixed *Planiseal Traffic Coat FS* until the desired consistency is achieved.
2. Mix for 2 to 3 minutes and apply immediately.

** Application rates are theoretical and are to be used for estimating purposes only. Actual spread rates depend on field conditions, as well as concrete profile and quality. Contact MAPEI's Technical Services Department for applications not listed.*

CLEANUP

- Clean tools and equipment with xylene, or appropriate solvent, immediately after using. Wash hands and skin with soap or industrial hand cleaner, rather than with solvent. Cured material must be removed mechanically.

LIMITATIONS

- Ambient, substrate, aggregate and epoxy resin temperatures should be 45°F to 90°F (7°C to 32°C).
- Minimum age of concrete before application is 21 to 28 days, depending on curing and drying conditions.
- No additional ingredients are required; do not thin with solvents.
- Do not use neat. Use with a broadcast aggregate or as a mortar.
- Do not apply to on- or below-grade slabs or other structures where moisture-vapor transmission is a concern.
- Do not use across moving joints, or for sealing joints and cracks subject to hydrostatic pressure.

Product Performance Properties

Laboratory Tests	Results
Compressive strength – ASTM D695	6,500 psi (44.8 MPa)
Gel time, 60 g at 73°F (23°C) – ASTM C881, Section 11.2	9 minutes
Tensile strength, at 7 days – ASTM D638	2,000 psi (13.8 MPa)

Elongation at break, at 7 days – ASTM D638	55%
Bond strength (ASTM C882)	
Moist, 14 days	> 1,500 psi (10.3 MPa)
Dry-cure, 24 hours	1,450 psi (10 MPa)
Dry-cure, 4 days	2,200 psi (15.2 MPa)
VOC content (SCAQMD Rule 1113)	< 100 g per L
Typical VOC content per SCAQMD Rule 1113 testing methods	37 g per L

Shelf Life and Product Characteristics

Shelf life	2 years when stored in original, unopened packaging at 45°F to 90°F (7°C to 32°C)
Color, Part A	Yellow
Color, Part B	Light amber

Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

Application Properties

Mixing ratio (Part A epoxy resin : Part B curing agent)	1 : 1 by volume
Physical state (mixed)	Liquid
Color (mixed)	Yellow
Application temperature range	45°F to 90°F (7°C to 32°C)
Pot life at 73°F (23°C)	5 minutes
Time for allowing vehicular traffic (at 45°F [7°C])	6.5 hours

Curing Times

	At 45°F (7°C)	At 73°F (23°C)	At 90°F (32°C)
Time until tack-free	2.5 hours	1.5 hours	1.25 hours
Time until open to traffic	6.5 hours	3 hours	2 hours

CSI Division Classification

Traffic Coatings	07 18 00

Packaging

Size
Part A, pail: 5 U.S. gals. (18.9 L)
Part B, pail: 5 U.S. gals. (18.9 L)
Part A, drum: 55 U.S. gals. (208 L)
Part B, drum: 55 U.S. gals. (208 L)
Part A, tote: 275 U.S. gals. (1 041 L)
Part B, tote: 275 U.S. gals. (1 041 L)

Approximate Coverage**
per 1 U.S. gal. (3.79 L)

Type of coverage	Coverage
As an epoxy only	1st coat at 1 U.S. gal. per 40 sq. ft. (0.98 L per m^2) 2nd coat at 1 U.S. gal. per 20 sq. ft. (0.49 L per m^2)
As an epoxy mortar	10 sq. ft. (0.93 m^2)

*** Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to surface profile and the aggregate used.*

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.**

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For the most current product data and BEST-BACKED[SM] warranty information, visit www.mapei.com.