



Planiseal Traffic Coat™

Epoxy Overlay for Vehicular and Pedestrian Traffic



DESCRIPTION

Planiseal Traffic Coat is a solvent-free, moisture-tolerant, 100%-solids, low-modulus, two-part epoxy bonding agent and binder engineered for providing a waterproof and skid-resistant overlay on such surfaces as bridges, elevated slabs, parking garages and balconies. *Planiseal Traffic Coat* arrests carbonation and stops the penetration of chloride ions into concrete decks, while providing a skid-resistant, durable and attractive finish.

FEATURES AND BENEFITS

- Offers a decorative and exceptionally durable waterproof overlay
- Provides tremendous bond strength
- Moisture-tolerant and nonflammable
- Fast-curing with early film strength
- Easy to mix – 1:1 component ratio
- Low-modulus performance ensures superior compatibility with thermal movement in concrete

INDUSTRY STANDARDS AND APPROVALS

ASTM C881-90: Type III; Classes B and C

Meets USDA specifications for food-processing areas

Meets AASHTO-AGC-ARTBA Task Force 34, October 1995

<u>LEED (Version 3.0) Points Contribution</u>	<u>LEED Points</u>
MR Credit 5, Regional Materials*	Up to 2 points
IEQ Credit 4.2, Low-Emitting Materials – Paints & Coatings	1 point

* Using this MAPEI product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials.

WHERE TO USE

For Professional Use

- Use on interior/exterior horizontal surfaces.
- Use on elevated concrete bridges and decks subject to frequent freeze/thaw cycles, de-icing chemicals, and stresses produced by severe humidity and temperature changes.
- Use to provide a durable, attractive and trafficable waterproof coating on balconies, parking garages and plaza decks.
- Use to provide a durable, protective skid-resistant membrane.
- Use to extend the life of concrete decks subject to abrasion and chloride attack.

LIMITATIONS

- Use only between the temperatures of 55°F and rising up to 95°F (13°C and 35°C).
- For temperature above 85°F (29°C), take appropriate precautions to keep material cool.
- No additional ingredients are required; do not thin with solvents.
- *Planiseal Traffic Coat* is effectively impermeable once cured.
- Do not use across moving joints, or for sealing joints or cracks subject to hydrostatic pressure.
- Use on suspended slabs, balconies, etc., but not on slabs on grade that are subject to freezing.

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



SUITABLE SUBSTRATES

- Properly prepared concrete at least 28 days old, stable and free of standing water
- Elevated concrete decks or slabs
- Slabs on grade with no rising moisture vapor. Before application on slabs on grade, perform a moisture test with a transparent plastic sheet for 6 to 24 hours (per ASTM D4263). If rising vapor is present on slabs on grade, alternate overlay systems or treatments are recommended.

SURFACE PREPARATION

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

- Surface must be concrete at least 28 days old, sound, stable and dry.
- Repair spalls, potholes and cracks before application of *Planiseal Traffic Coat*.
- Prepare surface by shotblasting or alternate mechanical means to achieve a CSP #5. Remove all contaminants, dust and debris with oil-free compressed air.

MIXING

1. Precondition material to between 65°F and 85°F (18°C and 20°C) before use.
2. Mechanically mix Part A with Part B 1:1 by volume with jiffy-type mixer and low-speed variable drill at 300 rpm for 3 minutes. Mix only the quantity that can be used within its gel time.

PRODUCT APPLICATION

1. Apply *Planiseal Traffic Coat* neat with a 3/16" (4,5 mm) notched squeegee at 1 U.S. gal. per 40 sq. ft. (0,98 L per m²).
2. Broadcast select aggregate to refusal at 11 lbs. per 10 sq. ft. (4,99 kg per 0,93 m²).

Aggregate specification: Select angular aggregate, grain silica sand or basalt having less than 0.2% moisture and free of dirt, clay, etc. The silica sand or basalt aggregate must have a minimum Mohs scale hardness of 7 unless otherwise approved.

3. After initial cure of first coat, remove excess aggregate. Do not open to traffic.
4. Apply second coat of epoxy at 1 U.S. gal. per 20 sq. ft. (1,96 L per m²).

5. Apply the second coat of aggregate at 16 lbs. per 10 sq. ft. (7,26 kg per 0,92 m²).
6. Allow to cure according to the "Curing Times" table.
7. Remove excess aggregate.
8. Open to traffic.

Product Performance Properties

Epoxy Resin Properties	Results	ASTM C881 Specifications
Mix ratio (Part A : Part B)	1:1 by volume	None
VOCs (Rule #1168 of California's SCAQMD)	14.6 g/L	None
Compressive modulus (ASTM D695)	64,820 psi (447 MPa)	130,000 psi (897 MPa) maximum
Tensile strength (ASTM D638)	2,610 psi (18 MPa)	None
Tensile elongation (ASTM D638)	49%	30% minimum
Bond strength, 14-day cure (ASTM C882)	3,470 psi (23,9 MPa)	1,500 psi (10,3 MPa) minimum
Absorption (ASTM D570)	0.19%	1.0 maximum
Gel time (ASTM C881)	30 minutes	30 minutes minimum
Brookfield viscosity RV3 at 20 rpm (ASTM C881)	1,425 cps	2,000 cps maximum
Shore "D" hardness (ASTM D2240)	69	None
Shrinkage (ASTM C883)	Pass	Pass
Thermal compatibility (ASTM C884)	Pass	None
Chloride ion permeability (AASHTO-T-277)	0.9 coulombs	None

Curing Times

		Average Temperatures of Overlay Component and Substrate					
		60°F to 64°F (16°C to 18°C)	65°F to 69°F (19°C to 21°C)	70°F to 74°F (21°C to 23°C)	75°F to 79°F (24°C to 26°C)	80°F to 84°F (27°C to 28°C)	+ 85°F (+ 29°C)
Minimum Cure Time	Coat 1	4 hours	3 hours	2.5 hours	2 hours	1.5 hours	1 hour
	Coat 2	5 to 6 hours	5 hours	4 hours	3 hours	3 hours	3 hours

CSI Division Classification

Traffic Coatings	07 18 00
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Shelf Life and Application Properties

Shelf life	2 years in original unopened container. Store at 40°F to 90°F (4°C to 32°C).
Gel time	30 minutes

Packaging

Product Code	Size
46557	Kit: 2 U.S. gals. (7,57 L): two cans of 1 U.S. gal. (3,79 L) each
46568 (Part A) 46569 (Part B)	10 U.S. gals. (37,9 L): two pails of 5 U.S. gals. (18,9 L) each
46577 (Part A) 46578 (Part B)	110 U.S. gals. (416 L): two drums of 55 U.S. gals. (208 L) each

Approximate Product Coverage

Coverage	Amount required for 10 sq. ft. (0,93 m ²)
<u>Epoxy only</u> : 0.75 U.S. gal. per 10 sq. ft. (2,84 L per 0,93 m ²)	1st coat at 0.25 U.S. gal. (0,95 L), 2nd coat at 0.5 U.S. gal. (1,89 L)
<u>Aggregate</u> : 27 lbs. per 10 sq. ft. (12,2 kg per 0,93 m ²)	1st coat at 11 lbs. (4,99 kg), 2nd coat at 16 lbs. (7,26 kg)

Planiseal™ Traffic Coat



RELATED DOCUMENTS

ACI Specification for Type EM (Epoxy Multi-Layer) Polymer Overlay for Bridge and Parking Garage Decks	ACI 548.8-07
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Refer to MAPEI's Material Safety Data Sheet (MSDS) for specific data related to VOCs, health and safety, and handling of product.

STATEMENT OF RESPONSIBILITY

Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. **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.**

We proudly support the following industry organizations:



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

Edition Date: February 2, 2010
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