

CIPADECK® TDO-99S

Traffic Deck Overlays

DESCRIPTION

CIPADECK® TDO-99S is a 100% solids, two component self-leveling urethane modified epoxy surfacing. It offers a non-skid surface that is highly resistant to heavy traffic exposure, impact, de-icing salt and petroleum products. CIPADECK® TDO-99S is primarily designed for concrete and steel decks and other metallic and concrete surfaces.

WHERE TO USE

- waterproofing protection to bridge decks and ramps
- heavy duty non-skid coating
- patching and repair mortar

BENEFITS

- 100% solids, low odor, zero VOC's
- fast setting to minimize traffic disruption
- unaffected by humidity during the application; contains no isocyanate
- self leveling and easy to apply
- color coded to ensure uniform mixing
- resilient, tough with excellent impact and thermal shock resistance
- superior abrasion and skid resistance
- outstanding adhesion to concrete and steel decks
- excellent resistance to water, de-icing salts, alkalies, gas, oil and other petroleum products

PROPERTIES

WET PROPERTIES:

Mix Ratio, by volume	1 part A: 1 part B
Solids Content	100%
Mixed Viscosity	3,000 cps (ASTM D2393)
Mixed Weight (Density)	1.1kg/L (9.18lb/US gal)
Pot Life @ 23°C (74°F)	20 minutes
Set Time (neat) @ 23°C (74°F)	3 hours
(Seeded) @ 23°C (74°F)	2 hours
Color	Grey
Full Cure	5-7 days

CURED PROPERTIES:

Tensile Strength	19 MPa (2755 psi)
(ASTM D638)	
Bond Strength to Steel (pull-out)	10 MPa (1500 psi)
Hardness Shore D	70-75
Elongation	20%
(ASTM D638)	
Compressive Strength (filled)	45 MPa (6500 psi)
(ASTM C109-86)	
Thermal Compatibility (filled)	passed 10 cycles
(ASTM C884-78)	-21°C to 60°C 6mm depth
Abrasion Resistance	0.18g
(ASTM D1044)	
* C-10 wheel, 1000g load, 1000 cycles	
Water absorption	0.1% (by weight)
(ASTM D413)	
Chloride ION Permeability (seeded):.....	0 coulombs
(FHWA-RD-81-119)	
Skid Resistance (wet, seeded):	88
(ASTM E-303)	

The above information is representative of typical values obtained under laboratory conditions. Variations can be expected due to on site conditions and/or other testing methods.

APPLICATION

SURFACE PREPARATION

Prepared concrete substrate should be sound and free from dust, loose particles and all foreign contamination. All concrete should be chemically cleaned or mechanically scarified for best results. New concrete should be cured 28 days and any surface laitance or curing compound must be removed.

Steel surfaces should be free of dirt, grease, oil or rust. Blast surface using an angular medium such as aluminum oxide or grit to SSPC-SP10 standard, with a minimum profile of 2.5 mils. Where sandblasting is not practical, the surface should be degreased and mechanically abraded to reveal continuous bright metal.

MIXING

Pre-mix each component separately before combining. Mix one part (by volume) of Part "A" and one part (by volume) of Part "B". Mix thoroughly for 2-3 minutes until a uniform grey color is achieved. Exercise care not to entrap air while mixing.

PLACING

Spread the mixed material onto the prepared surface using squeegee and back roll to obtain a smooth, uniform thickness. Broadcast the selected aggregate lightly onto the first coat of liquid material to full saturation and until no "wet spots" are visible. When the first coat has cured sufficiently to sustain working traffic, any excess must be removed by sweeping followed by high powered vacuum.

Apply the second application in the same manner. The coverage rates for the second coat will be reduced due to the textured base. Excess aggregate must be removed before permitting traffic on the finished system. The amount of cure time required before resuming traffic will vary depending on the ambient and deck surface temperatures at the job site.

LIMITATIONS

- CIPADECK® TDO-99S may discolor upon exposure to ultra violet radiation. This would not affect the film integrity or the performance.
- concrete temperature must be a minimum of 5°C (40°F) during application
- steel temperature must be a minimum of 10°C (50°F) during application and for a period of 48 hours following application
- Part B container must be tightly sealed after each use
- concrete must be a minimum of 28 days old prior to CIPADECK® TDO-99S installation

COVERAGE

For ramps or bridge deck applications, CIPADECK® TDO-99S will provide the following coverage at 40 mils film thickness per coat.

First coat:

CIPADECK® TDO-99S: 1 m²/litre (40 ft²/U.S. gal.)
aggregate: Indag #9 (or silica sand ST-12 aggregate) : 5.5 kg/m² (12.1 lbs/ 10.7 ft.²)

Second coat:

CIPADECK® TDO-99S: 0.6 m²/litre (24 ft²/U.S. gal.)
aggregate: Indag #8 (or silica sand 620 aggregate): 7.5 kg/m² (16.5 lbs/10.7 ft.²)

PACKAGING

37.9 Litre (10 U.S. gallons) unit

CLEAN UP

Clean all tools and equipment with Xylene Solvent prior to material set.

STORAGE

Must be stored in a dry heated warehouse. Do not allow to freeze in storage or transport as base resin may crystalize.

SHELF LIFE

One year if stored under normal heated warehouse conditions in original unopened containers.

SAFETY PRECAUTIONS

Consult Safety Data Sheet for specific instructions. SDS # 316 + 316A

WARRANTY

The recommendations made and the information herein is based on our own and independent laboratory experience, and is believed to be accurate under controlled conditions. However, no warranty or guarantee of accuracy is made because we cannot cover every possible application of product nor anticipate every variation encountered in weather conditions, job conditions, methods used and types of surfaces on which the product is applied. The users shall make their own tests to determine the suitability of such products for any particular use.

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