SILSPEC[®] RE-DECK



DESCRIPTION

SILSPEC® RE-DECK Bridge and Pavement Wearing Course is a solvent-free, moisture-insensitive, 100% solids, low modulus, two-component, urethane epoxy bonding agent. RE-DECK meets all requirements of ASTM-C881, Type III, Grade 1, Classes B & C.

Excellent for use as a binder for skid-resistant overlays on concrete bridges and elevated slabs.

- Complies with ASTM-C881, Type III, Grade 1, Classes B & C
- Excellent Bond Strength
- Low Modulus
- Low Viscosity
- High Early Strength
- Short Lane Closure Time

- Easy to Mix, 1:1 Ratio
- Moisture Insensitive
- Non-Flammable
- Lightweight
- Fast Application
- Environmentally Friendly



Keep Traffic Moving with SILSPEC® RE-DECK



USES

- Bonding Skid-Resistant Overlays to Bridges and Elevated Surfaces
- Patching Concrete as Epoxy Mortar

PACKAGING

2 Gallon (3.8 L) Units: 2, 1 gallon cans 10 Gallon (37.9 L) Units: 2, 5 gallon buckets 110 Gallon (416.4 L) Units: 2, 55 gallon drums



PROPERTIES

RESIN PROPERTIES							
Laboratory Tests	Results	ASTM-C881 Specifications					
Mix Ratio	1:1, by volume	None					
D-695 Compression Modulus	65,000 psi	130,000 maximum					
C-638 Tensile Strength	2,500 psi	None					
D-638 Tensile Elongation	50%	30% minimum					
C-882 Bond Strength (14 Day Cure)	3,000 psi	1,500 psi minimum					
D-570 Absorption	0.20%	1.0% maximum					
C-881 Brookfield Vis. RV3 @ 20 rpm	1,500 cps	2,000 cps maximum					
D-2240 Shore D Hardness	70	None					
C-883 Shrinkage	Neglibigle ¹	Pass					
C-884 Thermal Compatibility	Pass	None					
ASHTO T-222 Chloride Ion Permeability	0.9 coulombs	None					
GROUT PROPERTIES Sand to Resin — 3.5:1, By Volume							
C-579 ² Compressive Strength, 3 Hours	1,500 psi	N/A					
C-579 ² Compressive Strength, 24 Hours	7,000 psi	N/A					
C-579 ² Compressive Strength, 48 Hours (Moist Cure)	7,000 psi	N/A					

¹ Too small to test

² C-579 Method B with plastic

COVERAGE

MINIMUM EPOXY & AGGREGATE COVERAGE RATES						
	Epoxy Rate	Aggregate Rate				
Course 1	1 gallon/40 sq. ft. minimum (1 L/m²)	10 lbs./sq. yd. (5.4 kg/m²)				
Course 2	1 gallon/20 sq. ft. minimum (2 L/m²)	14 lbs./sq. yd. (7.6 kg/m²)				

APPLICATION FOR BONDING SKID-RESISTANT OVERLAYS

Step 1: Repair delaminations, potholes, and cracks with SILSPEC[®] FLEXPATCH.

Step 2: SILSPEC[®] RE-DECK must be applied to a clean and dry surface. Clean surface by milling, shotblasting, or sandblasting to remove all contaminants. This cleaning shall produce a surface relief equal to the International Concrete Repair Institute (ICRI) Surface Preparation Level 6. Remove dust and debris by blowing off with oil-free compressed air.

Step 3: Mechanically mix component A with component B, at a 1:1 ratio, by volume, with a Jiffy-type mixer and low speed variable drill at 300 rpm. Mix for a minimum of 3 minutes. Mix only the quantity that can be used within its working time.

Step 4: Apply neat RE-DECK by notched squeegee at the specified rate.



Step 5: Broadcast select aggregate to refusal. The aggregate should be angular, hard, durable, and free of dirt, clay, asphalt, and other foreign or organic material. Aggregate shall contain less than 0.2% moisture. The Los Angeles Abrasion percent wear shall be limited to a maximum of 40% after 500 revolutions, when tested in accordance with ASSHTO T-96.

Step 6: After initial cure of first course, blow off excess aggregate with clean, oil-free air. DO NOT open to traffic.

Step 7: Apply second coarse of epoxy and aggregate. Allow to cure, following the table below. Remove excess aggregate before opening to traffic.

MINIMUM CURING TIME OF SILSPEC® RE-DECK									
	Average Temperatures of Overlay Components & Substrate								
	60 - 64° F (15 - 18° C)	65 - 69° F (18 - 20° C)	70 - 74° F (21 - 23° C)	75 - 79° F (23 - 26° C)	80 - 84° F (26 - 29° C)	85+° F (29+° C)			
Minimum Cure Time Course 1	4 Hours	3 Hours	2.5 Hours	2 Hours	1.5 Hours	1 Hour			
Minimum Cure Time Course 2	6 - 5 Hours	5 Hours	4 Hours	3 Hours	3 Hours	3 Hours			

CLEANUP

Equipment: Uncured material can be removed with Citrus Cleaner, or other approved solvents. Cured material can only be removed mechanically.

Material: Collect with absorbent material. Dispose of in accordance with local, state, and federal disposal regulations.

FIRST AID

Eye Contact: Flush immediately with water for at least 15 minutes. Contact a physician immediately.

Respiratory Contact: Remove person to fresh air.

Skin Contact: Remove any contaminated clothing. Remove polymer immediately with a clean and dry towel. Wash skin thoroughly with soap and water. Solvents should **not** be used as they carry the irritant into the skin.

Cured polymer is innocuous.

LIMITATIONS

- Minimum age of concrete must be 28 days prior to applying SILSPEC[®] RE-DECK as an overlay, without manufacturer's approval.
- Not for use on exterior slabs on grade subject to freezing without manufacturer's approval.
- Working time is temperature and mass dependent approximately 15 minutes at 70° F.
- Consult an SSI representative for further details.

SILSPEC® RE-DECK



CAUTIONS

Component A: Irritant Component B: Corrosive

Product is a strong sensitizer. Use of safety goggles and chemical-resistant gloves is recommended.

Use of a NIOSH/MSHA organic vapor respirator is recommended, if ventilation is inadequate.

Avoid breathing vapors.

Avoid skin contact.

Material is a vapor barrier after curing.

(800) 888-8909

Do not thin with solvents.



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Warranty Limitations: SSI represents to the purchaser of this product from SSI (referred to as customer) that the information in this literature is an accurate description of the typical characteristics, properties, and uses of the product, if transported, stored, and applied in accordance with this literature and the referenced Material Safety Data Sheet. Unless SSI provides, before product installation, an express written warranty after receipt and evaluation of specific written project conditions and applicable scope documentation, SSI's exclusive warranty is that the product will conform to the sales representations stated, herein, and the current Material Safety Data Sheet. SSI expressly disclaims all other express or implied warranties, including without limitation warranties of merchantability and fitness for particular purpose. In no event shall SSI's liability for damages arising from the sale of this product the amount of purchase price received by SSI from customer for this product delivered to the project in question, or at SSI's sole option, SSI may replace the product or portion thereof that does not conform to the foregoing representation. SSI expressly excludes any liability for special or consequential damages.

Customer is solely responsible for evaluating job conditions and the suitability of described physical properties and characteristics of the product to meet specified or apparent project requirements and for application of the product in accordance with SSI's recommendations.

These representations are intended for reliance exclusively by the customer and are not intended to benefit any other person or entity. These exclusions, modifications, or limitations of warranties, including their effect on rights and remedies, that are effective against are also effective against subsequent purchasers, users, and third party beneficiaries of the sale of this product.

SSI undertakes no responsibility for storage, mixture, preparation of surfaces, application, use, or misuse of product or its conformity to specifications that are not previously and expressly acknowledged in writing by SSI.

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