

Waterproofing

Deckguard® Spray-Applied Membrane

Product Description

Deckguard® Spray Membrane is a 100% solids two-component, bridge-grade elastomeric coating used to waterproof both steel and concrete bridge decks. Applied using plural spray equipment, Deckguard® provides a seamless, flexible, extremely durable barrier against water penetration and stray current.

Applications

Deckguard® Spray Membrane is specifically engineered for use on highway and railroad bridge decks, bridge abutments, pier caps, tunnels and pedestrian walkways.

Deckguard® Spray Membrane can be used on intermodal and LRT rail bridges with or without protection board, providing fast turnaround for demanding schedules.

Deckguard® Spray Membrane can be used without priming on steel decks having a 5 mil profile allowing the fastest system installation in the industry.

Deckguard® Spray Membrane's superior toughness allows for short-term rubber-tired construction/vehicular traffic before returning the bridge deck to service.

Advantages

- Low vapor transmission
- Applied to 5 mil profile steel decks without priming
- Low odor
- Meets AREMA Cold Spray-Applied Waterproofing requirements
- Seamless lap joints
- Low temperature flexibility
- Complies with "Buy America" requirements
- VOC Compliant
- Certified Applicator program
- 100% solids
- Non-hybrid system
- Excellent chemical resistance

- Superior crack-bridging
- Accepts thermal movement without crazing
- Infrared Spectroscopy used as part of Quality Control during manufacture

Deckguard® Waterproofing System

Property	Test Method	Criteria
Open to Traffic		4 hours*
Solids Content		100%
Gel Time		5 seconds
Tack-Free Time		10 seconds
Hardness	ASTM D2240	50 Shore D
Elongation	ASTM D638	250% +
Water Vapor Transmission	ASTM E96 Procedures A and B	< 0.9 perms
Adhesion to Steel	ASTM D4541	> 300 psi
Adhesion to Concrete (primed)	ASTM D7234 and D4541	> 200 psi**
Taber Abrasion H 18/1000 cycles	ASTM D4060	125 mg
Crack-Bridging	ASTM C1305 Minimum 80 mils at 40 cycles at -15° F with 1/8" opening	Pass
Ballast Test	N. American	Pass 2,000,000 cycles
Electrical Resistance	ASTM D257	1.5 x 10 ¹⁴ +ohmcm
Tensile Strength	ASTM D638	> 2000
Chemical Resistance to Glycol, Calcium Chloride, Diesel and Gas	ASTM D543 Method B	Pass
Tear Strength, pli, Die C	ASTM D624	450 pli

*Deckguard membrane must include an approved aggregate and be allowed to cure 4 hours prior to allowing traffic.

**Or failure in concrete

Bridge the World with Leading Infrastructure Solutions

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Deckguard® Primer

Property	Test Method	Criteria
Gel Time		30 seconds typical
Maximum Tack-Free Time at 77° F (hours)		1 hour
Bond to Deckguard® Membrane	ASTM D4541	500 psi+
Adhesion to Steel	ASTM D4541	>300 psi
Adhesion to Concrete	ASTM D7234 and D4541	150 psi*

*Or failure in concrete.

Deckguard® Top Coat

Property	Test Method	Criteria
Open to Traffic		4 hours*
Solids Content		100%
Gel Time		30-45 seconds
Tack-Free Time		3 minutes
Hardness	ASTM D2240	45-50 Shore D
Elongation	ASTM D638	250% +
Water Vapor Transmission	ASTM E96 Procedures A and B	< 0.9 perms
Adhesion to Steel	ASTM D4541	> 300 psi
Adhesion to Concrete (primed)	ASTM D7234 and D4541	> 200 psi**
Taber Abrasion H 18/1000 cycles	ASTM D4060	125 mg
Crack-Bridging	ASTM C1305 Minimum 80 mils at 40 cycles at -15° F with 1/8" opening	Pass
Ballast Test	N. American	Pass 2,000,000 cycles
Electrical Resistance	ASTM D257	1.5 x 10 ¹⁴ +ohmcm
Tensile Strength	ASTM D638	> 2000
Chemical Resistance to Glycol, Calcium Chloride, Diesel and Gas	ASTM D543 Method B	Pass
Tear Strength, pli, Die C	ASTM D624	450 pli

*Deckguard membrane must include an approved aggregate and be allowed to cure 4 hours prior to allowing traffic.

**Or failure in concrete

Installation

Deckguard® Spray Membrane is spray-applied using suitable plural spray equipment at a 1:1 mix ratio. Deckguard® Spray Membrane is applied over the Deckguard® Primer at a nominal 80 mils. Application of a second subsequent 30 to 40 mil layer of membrane or top coat shall be applied on highway bridge decks that have been determined to require an aggregate broadcast for shear-key purposes.

Shelf Life

Shelf life is up to one year in factory sealed containers stored between 55°F and 95°F.

Safety

Safety Data Sheets provided with all shipments.

The D.S. Brown Company

Founded in 1890 and based in North Baltimore, Ohio, USA, The D.S. Brown Company is a worldwide designer, manufacturer and supplier of engineered products for the highway and bridge construction markets.

Deckguard® Tack Coat

Property	Test Method	Criteria
Color		Black
Specific Gravity at 25° C		1.02
Penetration at 77° F	ASTM D5	15 - 40
Weight per Gallon at 60° F		8.5 lbs.
Flash Point, C.O.C.		550° F min
Odor		Tar



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