

Description

ArmorThane SureGrip is a fast set, rapid curing, 100% solids, flexible, aromatic, two component spray polyurea that can be applied to suitably prepared concrete and metal surfaces. Its extremely fast gel time makes it suitable for applications down to -20°F (-29°C). It may be applied in single or multiple applications without appreciable sagging and is relatively insensitive to moisture and temperature, allowing application in most temperatures.

Typical Physical Properties

Mix Ratio by Volume: 1A:1B

Tack Free Time: 60-120 seconds

Density (Side A & B combined): 8.75 lbs/gal

Hardness, ASTM D-2240: 85 ± 5 A

Elongation, ASTM D-412: 650% ± 50%

Service Temperature: -40 to 300°F (-40 to 149°C)

VOC Content: 0 gm/lit

Return to Service, Foot Traffic: 1-4 hours

Taber Abrasion Resistance, ASTM D-4060 (CS17 wheel, 1000 cycles, 1 kg load) (maximum): 28.1 mg loss

Crack Bridging, ASTM C836 (13°F (-25°C), 1.6 mm crack, 26 cycles): Pass

Pull Off Strength (minimum), ASTM D-4541, Inter-Coat Adhesion (within recoat time): Excellent

Steel (751-100 micron blast profile): > 900 psi

Flexibility 1/8" (3mm) Mandrel Bend Test, ASTM D1737: Pass

Resistance to Weathering, ASTM G-23 (Type DH Weatherometer-2000 hour exposure): No cracking or blistering. Color change, gloss reduction, and chalking are noted.

ASM 825: Wet 1.02, Dry 1.30

FAR 25.853 Horizontal Burn: Does not ignite

Pot Life @ 150°F (66°C): 3-5 seconds

Recoat Time: 0-6 hours

Flash Point: >200°F (93°C)

Tensile, ASTM D-412: 3000 ± 200 psi

Tear, ASTM D-412: 450 ± 50 pli

Water Vapor Permeability, ASTM E-96: 0.00042 gm/hr in²

Recommended Applied Thickness: > 2 mm

Return to Service, Full Service: 10-24 hours

Water Absorption, ASTM D471 (max 73°F (23°C), 24 hours): < 0.5%

Impact Resistance @ 77°F (25°C): > 200 lbs

Concrete (Shot blast and primed profile), substrate failure occurred: >500 psi

Lineal Shrinkage: 1-2%

Viscosity @ 150-160°F (66-71°C), Brookfield:

Side A: 50 ± 20 cps

Side B: 50 ± 20 cps

Horizontal Burn Test FMVSS 302: Does not ignite

Mixing

Mix ratio is 1A to 1B. ArmorThane SureGrip may not be diluted under any circumstances. Use appropriate cleaner for purge line and flushing of equipment and if spraying stops for periods exceeding the pot life of the material. Thoroughly mix the SureGrip Side B (resin) with air driven power equipment until a homogenous mixture and color is obtained.

Application Process

Coverage: ArmorThane SureGrip may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 square feet.

Surface Preparation: In general, coating performance and adhesion are directly proportional to surface preparation. Most failures in the performance of surface coatings can be attributed to poor surface preparation. Polyurea coatings rely on the structural strength of the substrate to which they are applied. All surfaces must be free of dust, dirt, oil, grease, rust, corrosion, and other contaminants. When coating substrates previously used, it is important to consider the possibility of substrate absorption, which may affect the adhesion of the coating system, regardless of the surface

preparation. ArmorThane recognizes the potential for unique substrates from one project to another. Refer to the technical bulletins in the ArmorThane Operations Manual concerning the preparation method for the substrate.

Application: Both SureGrip Side A and Side B should be preconditioned to 75-80°F (24-27°C) before application. Recommended surface temperature must be at least 5°F above the dew point.

ArmorThane SureGrip should be applied using either the HighLine 2511 or HighLine 4011 spray equipment. Both Side A and Side B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F (66°C). Adequate pressure and temperature should be maintained at all times. SureGrip should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

Packaging

Color: Clear/neutral. Due to its aromatic composition, ArmorThane SureGrip will tend to yellow or darken in color and will become flat after exposure to UV light. SureGrip may be topcoated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

10 gallon kit: 5 gallons Side A (iso side) and 5 gallons Side B (resin side)

100 gallon kit: 50 gallons Side A (iso side) and 50 gallons Side B (resin side)

Safety and Handling

Do not handle until the Material Safety Data Sheets (MSDS) for each component have been read and understood. Regulations require that all employees be trained on Material Safety Data Sheets for all chemicals with which they come into contact.

Storage: ArmorThane SureGrip has a shelf life of six months from date of manufacture, in factory-sealed containers. Side A and Side B drums are recommended to be stored above 60°F (16°C). Avoid freezing temperatures. Store drums on wooden pallets to avoid direct contact with the ground. If stored for a long period of time, rotate Side A and Side B drums regularly.

Limitations: Do not open until ready to use. Both Side A and Side B containers must be fitted with a desiccant device during use.

Warning: This product contains isocyanates and curative material.

Typical Uses

Airports
 Fertilizer Plants
 Food Processing Plants
 Secondary Containment
 Water and Waste Water Treatment
 Power Plants
 Warehouse Floors
 Landfill Containment
 Parking Garage Decks

Refineries
 Mining Operations
 Marine Environments
 Walkways and Balconies
 Industrial and Manufacturing Facilities
 Structural Steel
 Cold Storage Facilities
 Paper and Pulp Mills



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Features

- ✓ Excellent Thermal Stability
- ✓ Meets USDA Criteria
- ✓ Low Temperature Flexibility
- ✓ Excellent Color Retention
- ✓ Zero VOC
- ✓ 100% Solids
- ✓ Non-Reactive
- ✓ No Toxic Vapors
- ✓ Seamless
- ✓ Good Chemical Resistance
- ✓ Coats Most Metals without Primer
- ✓ Odorless
- ✓ Low Permeance Rate
- ✓ Installed with or without Reinforcement in Transitional Areas

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