Description

ArmorThane HighLine 510 is a fast setting, 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 application down to 20°F (-6°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 and environments. HighLine 510 offers a tack free time of less than 60 seconds and exhibits excellent elongation.

Typical Physical Properties

Mix Ratio By Volume: 1A:1B  
Tack Free Time: 45-60 seconds  
Density (Sides A & B combined): 8.81 lbs/gal  
Flash Point: >200°F (93°C)  
Tensile, ASTM 412-C: 2000 ± 200 psi  
Tear, ASTM 624-C: 400 ± 50 pli  
VOC Content: 0 gm/lit  
Return to Service, Foot Traffic: 1-4 hours

Resistance to Weathering, ASTM G-23: No cracking or blistering. Color change, gloss reduction and chalking are noted. (Type QUV Weatherometer – 3000 hour exposure)

Taber Abrasion Resistance, ASTM D4050: 6 mg loss (CS17 wheel, 100 cycles, 1 kg load) (maximum)

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

Inter-Coat Adhesion (within recoat time): Excellent

Concrete (primed), substrate failure occurred: >500 psi

Lineal Shrinkage: 1-2%

*Please note, a different spray machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.

Application Process

Agitation: ArmorThane HighLine 510 may not be diluted under any circumstances. HighLine 510 Side B (Polyol resin) is made up of many components. As a result, prior to using the resin, it must be agitated so that all of the components mix thoroughly together. The rule of thumb for agitation is:

Agitate one minute for every 1 US gallon of resin, or until mixed thoroughly.
HighLine 510 Side A (ISO) does not need to be agitated.

**Pigmentation:** HighLine 510 Side B (Polyol resin) requires that 100 grams of ArmorThane pigment be added to every one US gallon.

**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. For project-specific questions, please contact the ArmorThane Technical Department.

**Coverage:** HighLine 510 may be applied at any rate to achieve desired thickness.

**Application:** HighLine 510 is spray applied, using the ArmorThane HighLine plural component spray system.

Both HighLine 510 Side A and Side B materials should be preconditioned at 70°F (21°C) before application.

HighLine 510 materials should be sprayed at a minimum of 2800 psi and at temperatures above 150°F (66°C). Adequate pressure and temperature should be maintained at all times. Recommended surface temperature must be at least 5°F above the dew point.

HighLine 510 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

**Limitations:** Due to its aromatic composition, ArmorThane HighLine 510 will tend to yellow or darken in color after exposure to UV light. HighLine 510 may be topcoated with ArmorThane UV Topcoat or UV ColorCoat for a color-fast glossy finish.

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**Packaging**

HighLine 510 comes in 100 gallon kits: 50 gallons of Side A and 50 gallons of Side B.

**Safety and Handling**

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

**THIS PRODUCT CONTAINS ISOYCYANATE AND CURATIVE MATERIAL.**

ArmorThane HighLine 510 has a shelf life of one year from date of manufacture, in factory-sealed containers.
Avoid exposure to freezing temperatures for an extended period of time. Store drums on wooden pallets to avoid direct contact with the ground. Both HighLine 510 Side A and Side B are recommended to be stored above 60°F (16°C).

If stored for a long period of time, rotate drums (both Side A and Side B) regularly. Do not open drums until ready to use.

**Typical Uses**

- Airports
- Fertilizer Plants
- Food Processing Plants
- Secondary Containment
- Power Plants
- Warehouse Floors
- Landfill Containment
- Parking Garage Decks
- Industrial and Manufacturing Facilities

- Refineries
- Mining Operations
- Marine Environments
- Walkways and Balconies
- Structural Steel
- Cold Storage Facilities
- Paper and Pulp Mills
- Water and Waste Water Treatment

**Features**

- Zero VOC
- Low Temperature Flexibility
- Seamless
- Meets USDA/Agriculture Canada Criteria
- Installed With or Without Reinforcement in Transitional Areas

- Excellent Thermal Stability
- Good Chemical Resistance
- Odorless
- Coats Carbon or Mild Steel Metals Without Primer
THIS PRODUCT IS FOR COMMERCIAL USE ONLY, AND SHOULD ONLY BE APPLIED BY TRAINED PERSONNEL. NOT FOR SALE OR USE BY GENERAL PUBLIC.

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