



LS/45™

Ambient Cure Spray Polyurea

Technical Data Sheet

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Selection & Specification Data

Description

VersaFlex LS/45 is a self-leveling, 100% solids, flexible, two-component, rapid curing polyurea elastomer. Capable of being spray applied with low pressure at ambient temperatures

Typical Uses

Used as a low pressure spray coating with ambient cure on all bondable surfaces.

Ideal for Applications in

- Food processing facilities
- Kitchens
- Mechanical rooms

Advantages

- 100% solids, meets VOC regulations
- Remains flexible in cold temperatures
- Cures from -20°F to 130°F

Color & Stability (Limitations)

Standard colors are Light Gray (VF1221), Dark Gray (VF1220) and Tan (VF1223). Custom colors are available upon request. Note: Custom colors are not returnable; custom color options can be viewed at www.versaflex.com. The A-side (Iso) color could vary from clear to amber.

Versaflex LS/45 is an aromatic polyurea which will discolor from exposure to UV light without affecting the performance characteristics. Darker colors and earth tones may hide the color change better.

Theoretical square feet per gallon

*Note: 1604 mil inches per gallon. Totally dependent on substrate texture and condition.

Application Substrates:

Concrete & Masonry, Steel, Non-Ferrous Metals, existing Polyurea, Wood , and Fiberglass.

Physical Properties (Typical) 7 day cure at 72°F

Description	Test Method	Results
VOC	Theoretical	Zero
Solids Content	Theoretical	100%
Gel Time	ASTM D1640	~1 minute
Tack Free	ASTM D1640	~20 Minutes
Light Traffic	ASTM D1640	8 hours
Tensile Strength (psi)	ASTM D638	500 psi
Tensile Elongation (%)	ASTM D638	650%
Elastic Modulus	ASTM D638	120
Tear Strength (pli, Die C)	ASTM D624	115 pli
Shore (A) Hardness	ASTM D2240	>45
Taber abrasion, mg wt. loss (1000 g, 1000 revs, H-18)	ASTM D4060	600



Substrate and Surface Preparation

General

Prior to coating, the substrate must be prepared in a manner that provides a uniform, clean, sound, neutralized surface suitable for the specified coating. The substrate shall be free of all contaminants, such as oil, grease, rust, scale or deposits. The substrate shall be free of all dirt, dust, debris, and deleterious material. Coating performance is dependent on the degree of surface preparation.

Dew Point: Substrate temperature must be 5°F above dew point and rising before application of coating materials.

Concrete & Masonry

Reference SSPC-SP 13/NACE No. 6 Surface Preparation of Concrete. Minimum surface profile equivalent to ICRI CSP 3 to CSP 5 following ICRI Technical Guideline No. 310.2R-2013. Maximum moisture content of 3 lbs./24 hrs./1,000 ft² per ASTM F1869 or less than 5% maximum moisture content per ASTM F2420.

Steel (Atmospheric/Non-Immersion Service)

Visible deposits of oil, grease, or other contaminants shall be removed according to SSPC-SP 1. Prepare in accordance with SSPC-SP6/NACE No. 3 Commercial Blast Cleaning. Provide a sharp angular anchor profile of 3.0 or greater.

Non-Ferrous Metals

Reference SSPC SP-16 Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals. Only use non-metallic blast media. Contact VersaFlex Technical Services for primer recommendation and additional information.

Recommended Primers	
Concrete & Masonry	VF-20
	VF-15
	Raven 175
	Raven 171FS
Carbon Steel (Optional)	PW-1
	AquataPoxy 190
Non-Ferrous Metals	PW-1
	AquataPoxy 190
Wood & Fiberglass	VF-20
	VF-15

Substrate composition and moisture, application temperature, exposure temperature, and site conditions may effect primer selection.

VersaFlex is part of a family of companies. Specific primers may be available for different substrates or service conditions.

Contact VersaFlex Technical Service for more information and recommendations.



Mixing Instructions

Pre-mix: 'B' side must be mixed prior to use. Mix using a 3-tier, collapsible blade power mixer for at least 30 minutes prior to processing. Mixer diameter should be 1/3 diameter of the vessel.

Machine dispensing: Use 1:1 ratio pump with or without heater as required for individual application as long as components ambient temperature is 60°F or above. Low pressure spray head must be used for ambient cure spray applications.

DO NOT THIN

Process Equipment

Application Process: Low Pressure Plural Component Pump

Process Temperature:

Ambient (60°F min. material temperature due to increase in viscosity and Maximum of 120°F)

Process Pressure:

80-90 psi

AST Pumps	Dispensing Gun
PCH GMP-025	K2
PCH GMP-050	Fusion MP (Mechanical Purge)
PCH GMP-075	GX-7 Standard (Mechanical Purge)
Graco Pumps	GX-8 (Mechanical Purge)
E-10	Fusion AP with AW2828 Tip

Application

Application Temperature: -

-20°F and higher. Note that LS/45 will cure at sub-freezing temperatures, but the effects from these conditions may impact the application in a variety of ways. It is recommended that material and equipment ambient temperatures be kept at 60°F or above. Frozen concrete substrates with high moisture content will affect coating adhesion and long-term performance.

Curing Schedule

Light Traffic: 8 hours

Full Cure: 14 days

Packaging, Handling, & Storage

Available Packaging

- 110 Gallon Kit (55 of 'A' and 55 of 'B') Drum containers filled by weight, volume is closely approximated.
- 10 Gallon kit (5 gallons of 'A' and 5 gallons of 'B')

Shelf Life

One year from shipment date, in original, unopened factory containers.

Storage Temperature & Humidity

60°F min. 70°F optimum. Keep dry. Keep from freezing. Store in covered temperature controlled environment if possible. Use dry air desiccant for intake vent on drum.

Pre-Mix 'B' side well with mixer to re-disperse any settled pigment.



Cleanup & Safety

Cleanup

Cured product may be disposed of without restriction. Excess liquid 'A' & 'B' material should be mixed together and allowed to cure, then disposed of in the normal manner. Product containers that are "drip free" may be disposed of according to local, state, and federal laws.

Safety - Review SDS at www.versaflex.com.

- Wear Long sleeve overalls or disposable Tyvex suit
- Rubber gloves
- Protective eye wear
- Rubber or leather boots
- Respirator
- Do not use near high heat or open flame
- Do not take internally
- Keep out of reach of children

Warranty

Limited Warranty. Company warrants its goods to be free of manufacturing defects. Goods manufactured by Company will comply with all applicable federal, state and local laws and regulations. Company makes no warranty as to any parts or equipment manufactured by others. Customer shall look solely and only to the manufacturer of such parts or equipment with respect to any warranty claims. Company hereby assigns to Customer the original manufacturer's warranties to all such equipment and parts, to the full extent permitted. THE AFORESAID IS THE EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. SPECIFICALLY, THERE ARE NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

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