VersaFlex Incorporated
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Product Data Sheet

VF 350™

Elastomeric Spray Polyurea

USGBC LEED, EQ Credit 4:
Low-emitting VOC Compliant Materials

Product Description- *VersaFlex* VF 350 is a 100% solids elastomeric polyurea developed for applications requiring added strength and abrasion resistance. **VF 350** is a volatile free, odorless system with enhanced color stability that is applied at a 1:1 mix ratio with plural component spray equipment. **VF 350** forms a monolithic membrane suitable for concrete and metal applications. As a result, downtime is minimized, allowing rapid return to service of the areas coated. It can be applied at a thickness of 10 to 200 mils in a single application.

Uses- *VersaFlex* VF 350 is a superior coating material designed specifically for industrial applications receiving constant or intermittent attack from contained materials, subsurface hydrostatic pressure, most corrosive substances, and abrasive action. **VF 350** is flexible, accommodating movement of the substrate, yet strong enough to remain intact under all conditions except major structural dislocations. With or without reinforcements, **VF 350** may be used in transitional areas with confidence. **VF 350** may be used in interior or exterior applications and may be applied to concrete and other substrates in new construction and renovation work where time and temperature are serious concerns.

Ideal for Applications in:

- Industrial Facilities
- Parking Garage Decks
- Below Grade Waterproofing
- Above Grade Dampproofing
- Manufacturing Facilities
- Water and Waste Water Treatment
- Cold Storage Facilities
- Food Processing Facilities
- Pulp & Paper Mills
- Bottling & Canning Facilities
- Walkways & Balconies
- Secondary Containment
- Refineries
- Fertilizer and other Process Plants
- Mining Operations, Landfill Containment
- Airports
- Freezers

Advantages:

- 100% Solids, No VOCS
- Excellent Thermal Stability
- Enhanced Color Stability
- Heat of Deflection 250°F, no load
- Glass Transition Temperatures -85°F and 450°F
- Generally Suitable for Use When pH ranges 4 – 11
- Good Resistance to a Wide Range of Chemical Attack
- Non-Catalyzed, Non-Reactive
- Low Permeance Rate
- Seamless Elastomer
- Remains Flexible in Cold Temperatures
- Return Project to Service in 60 Minutes
- Cures From -40°F to 225°F
- Odorless, No Toxic Vapors
- USDA Approved
- FLL Root Resistant
- ANSI/GRHC/SPRI VR-1 (2011) compliant

Physical Properties-

Property	Test Method	Typical Value
VOC	Theoretical	0
Solids Content	Theoretical	100
Gel Time	ASTM D1640	12 – 15 seconds
Tack Free	ASTM D1640	50 – 60 seconds
Tensile Strength (psi)	ASTM D638	2000 – 2500
Tensile Elongation (%)	ASTM D638	345 – 680
Elastic modulus (psi)	ASTM D638	400 – 650
Tear Strength (lb/in)	ASTM D624	335 – 465
Shore (D) Hardness	ASTM D2240	45 (+/- 2)
Taber abrasion, mg wt loss (1000 g, 1000 revs, H-18)	ASTM D4060	100 – 125
The value ranges stated in this Technical Data Sheet are based on system processing under laboratory conditions. Equipment configurations and/or field application conditions may produce variances in final system values.		

Limitations- VF 350 should not be used for direct contact with extremely high or low pH attack. Composite systems are available. Consult ***VersaFlex***.

Coverage Rates- Theoretical square feet per gallon
*Note: 1604 mil inches per gallon. Totally dependent on substrate texture and condition.

Mils	10	15	50	60	80	100	125
Sq. Ft.	160	107	32	27	20	16	13

Packaging-

- One Hundred Ten Gallon Kit: 55 gallons of 'A' side and 55 gallons of 'B' side. Drum containers filled by weight, volume is closely approximated.

Mixing- VF 350 must be spray applied using approved equipment. Use 1:1 ratio pump with appropriate material heaters, as required for individual application. For more information contact ***VersaFlex***.

Colors- View standard *ColorFlex* chart at www.versaflex.com.

Surface Preparation & Installation- Metal: SSPC SP-10 or NACE No. 2 (Near White Metal Blast Cleaning). Concrete: abrasive blast to achieve a CSP of 3 to 5. Regard VersaFlex specification and Material Processing & Handling Information for further details. Substrate priming is not required on all substrates, contact VersaFlex for recommendations. Consult VersaFlex Spray gun configuration pdf for module and tip information.

Clean Up- 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 MSDS at *VersaFlex*.com
Basic safety for personal protection is:

- Long sleeve overalls or disposable Tyvex overalls
- Rubber gloves
- Splash shield or safety glasses with splash guards
- Rubber or leather boots
- Respirator
- Do not use near high heat or open flame
- Do not take internally
- Keep out of reach of children

Shelf Life- One year from date of shipment, in original, unopened factory containers, under normal storage conditions of 60^{o}F to 95^{o}F (18^{o}-35^{o}C).

Technical Services- Sales and Customer Support 913-321-9000

Warranty-*VersaFlex Incorporated* will refund the price of or replace, at its election, product it finds to be defective provided the product has been used properly. Except as expressly stated above, the company makes no warranty of merchantability and no warranty of fitness for any particular purpose, nor does it make any warranty, expressed or implied, of any nature whatsoever with respect to the product of its use. In no event shall the company be liable for delay caused by defects, for loss of use, for indirect, special or consequential damages, or for any changes or expenses of any nature incurred without its written consent.