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Product Data Sheet

VF 380-F™

Elastomeric Polyurea

USGBC LEED, EQ Credit 4:

Low-emitting VOC Compliant Materials

Product Description- *VersaFlex VF 380-F* is a 100% solids elastomeric polyurea developed for applications such as geotextile lining membranes. **VF 380** may also be applied to concrete and steel substrates. **VF 380-F** is a volatile free, odorless system applied with 1:1 mix ratio with plural component spray equipment.

Uses- *VersaFlex VF 380-F* provides less shrinkage with improved elongation characteristics. As a result, **VF 380-F** makes an excellent polyurea for liners, geotextile coatings, and applications where resilience and durability are required. **VF 380-F** may be applied at varying thicknesses in a single application using a multi-pass spray technique.

Ideal for Applications in:

- Waterproofing membranes
- Geotextile coatings
- Secondary containment
- Foam coatings
- Flexible membranes
- Liners
- Oil production water/condensate containments
- Typical ambient waste water & hydrogen sulfide exposures

Advantages:

- 100% solids, no VOC's
- 1:1 mix ratio by volume
- Rapid cure and fast gel time
- Immediate return to service
- Applied by plural component spray
- Odorless
- No VOC's
- Low curing stress shrinkage
- Exposure temperatures -40°F to 350°F, dry

Physical Properties-

(Typical) 1:1 Mix Ratio		
Cured Film Properties	Test Method	Typical Value
VOC	Theoretical	0%
Solids content	Theoretical	100%
Shore A hardness	ASTM D2240	80 - 85
Elongation	ASTM D638	350 - 390%
Tensile strength, psi	ASTM D638	2000 - 2500
Elastic Modulus (psi)	ASTM D638	500 - 900
Tear strength	ASTM D624	300 - 400 (lb./in.)
Moisture vapor transmission	ASTM E-96	0.02 perm
Taber abrasion, mg wt. loss (1000 g, 1000 revs, CS-17)	ASTM D4060	95 - 125
Gel time	ASTM D1640	7 - 12 seconds
Tack free	ASTM D1640	60 - 100 seconds

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 380-F* should not be used for direct contact with extremely high or low pH attack. Composite systems are available.

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 380-F must be spray applied using approved equipment. Use 1:1 ratio pump with appropriate material heaters, as required for individual application. See Material Processing & Handling Information for further details.

Colors- Refer to the ColorFlex chart at www.versaflex.com

Preparation & Installation- Review the material Processing & Handling Information for preparation and application procedures. Substrate priming is not required on all substrates, consult **VersaFlex** for recommendations. Also, consult the **VersaFlex** Spray Gun Configuration Recommendation pdf for specific modules and tips.

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°F to 95°F (18°-35°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.