



VersaFlex Incorporated
686 S. Adams Street
Kansas City, KS 66105
913-321-9000
913-321-1490 (Fax)

Product Data Sheet

Waterborne Urethane™ FR

WBG 250: Gloss

ASTM E84 Class 1 Flame Resistant Coating

USGBC LEED, EQ Credit 4:

Low-emitting VOC Compliant Materials

Product Description- VersaFlex Waterborne Urethane FR is a color stable, waterborne urethane used for coating or sealing applications requiring a flame resistant coating. The product is Class 1 Flame resistant approved that may be applied directly to most substrates and may be used as a topcoat for existing coatings. Waterborne Urethane FR displays excellent UV weathering characteristics with abrasion and chemical resistant features. The product is to be applied in a thin film (less than 5 mils). Apply in multiple applications when thicker applications are needed.

Uses- Waterborne Urethane FR may be used to overcoat other coating systems to either enhance gloss or to provide additional UV stability. It may be used as a thin mil stand-alone coating for concrete, metal, wood and other properly prepared substrates. It is a superior flame resistant material that resists ignition and will self-extinguish if ignited.

Ideal for Applications in:

- Any areas where a thin mil, abrasion resistant coating or sealer is required
- Any exterior use requiring color stability
- Food processing facilities
- Walkways & balconies
- Kennels and other animal enclosures
- May be used with CrobeFlex® in hospitals and other institutional environments where anti-microbial protection is required

Advantages:

- Class 1 Flame Resistant Approved Material
- No VOC's
- Non Toxic
- Easy to apply
- Low odor
- Superior color & gloss retention

Physical Properties-

Property	Test Method	Typical Value
Pot Life		~2 hours ¹
Tack Free	ASTM D1640	~4 hours ¹
The following properties are typical after maintaining cured product at 70°F – 77°F for 8 days:		
Tensile Strength (psi)	ASTM D638	1400 – 1800
Tensile Elongation (%)	ASTM D638	30 – 50%
Modulus of Elasticity, kpsi	ASTM D638	27 – 45
Tear Strength (lb/in)	ASTM D624	150 – 300
Shore (D) Hardness	ASTM D2240	35 – 40
Taber abrasion, mg wt loss (1000 g, 1000 revs, C-17)	ASTM D4060	15 – 20

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.

¹ Cure properties heavily influenced by environment conditions.

Packaging-

- .75 Gallon Kits: 1 part 'A': 2 parts 'B' (clear) or 1 part 'A': 3 parts 'B' (pigmented)
- 3 Gallon Kits: 1 part 'A': 2 parts 'B' (clear)
- 4 Gallon Kits: 1 part 'A': 3 parts 'B' (pigmented)

Mixing-

- For clear material: Drill mix Part 'A' with Part 'B' for 3 to 5 minutes. Gradually add in and mix the desired volume of distilled water to the combined 'A' & 'B' mixture to achieve a workable viscosity. Mix thoroughly. Mixed material is white in color but dries clear.
- For pigmented material: Drill mix Part 'A' with Part 'B' for 3 to 5 minutes. Gradually add in and mix **20-30%** volume of distilled water to the combined 'A' & 'B' mixture to achieve a workable viscosity. Mix thoroughly. -It is recommended that distilled water be used when lowering product viscosity. If available tap water is used, contaminants may affect the final desired color.

Overall pot life is dependent upon temperature of distilled water that is added and ambient temperature.

Colors- Clear or pigmented. View ColorFlex color chart at versaflex.com.

Surface Preparation- Surface shall be clean, dry and sound. Clean substrate of oils, grease and other contaminants. Curing/sealing agents shall be removed before application.

Application Recommendations- Waterborne Urethane FR may be applied by airless spray, hopper gun, brush or roller. Expect longer dry times between coats if multiple applications made. Follow recoat window of 4 hours. Apply at recommended spread rate listed below. For moderate to heavy duty use applications, two coats are recommended, followed by waiting a minimum of 48-72 hours before placing back into service.

Coverage of Square Feet per Gallon: Theoretical

Added distilled water%	WFT	DFT	SF Qty
20%	5	3	410
30%	5	3	470
50%	5	3	650

Application Temperature- Surface & ambient temperatures must be 40°F and rising. Do not apply to frozen concrete or high moisture content substrates, as this will affect coating adhesion and long term performance. Low temperature applications will extend drying time.

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 55°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.