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## Product Data Sheet

### **Vertical Mender™** **Epoxy Concrete Restoration & Re-Build**

**Product Description-** *VersaFlex Vertical Mender* is a specially formulated, 100% solids, epoxy concrete restoration and re-build product designed to repair heavily damaged concrete or reconstruct areas where a quicker turn around or improved chemical resistance is necessary.

**Uses- Vertical Mender** is ideal for areas where traditional cementitious products are inadequate due to hydration requirements, length of cure time, lack of chemical resistance, or lower compression and flexural strength. **Vertical Mender** can be formed, molded or shaped, making it ideal for vertical installation, reconstruction of key features, repair of damaged or cracked concrete for new construction or existing applications.

**Ideal for Applications in:**

- Pump pads
- Extensive concrete repair
- Chemical troughs
- High traffic areas
- High impact areas
- Curbs
- Fillets

**Advantages:**

- Non-shrink
- 100% solids
- Convenient packaging
- Specially formulated aggregate
- High compressive & flexural strength
- Good chemical resistance

**Physical Properties-**

<b>(Typical) Mix Ratio 3:1</b>		
<b>Cured Film Properties</b>	<b>Test Method</b>	<b>Typical Value</b>
Solids content		
Compressive strength	ASTM C579	8000 – 10000 psi
Tensile strength	ASTM C307	4000 – 5000 psi
Flexural strength	ASTM C580	6000 – 7000 psi
Density		125 lbs/cu ft
Working time	72°F to 75°F	20 – 30 minutes
Cure time (floor traffic)	72°F to 75°F	8 – 12 hours
Chemical service	72°F to 75°F	24 – 36 hours
Coefficient of thermal expansion	ASTM C531	20 x 10 <sup>-6</sup> in/in°F

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.

**Packaging- Vertical Mender** is available in kits that yield approximately 25 or 40 square feet. Aggregate is specifically blended for use in **Vertical Mender**. Theoretical coverage is as follows:

Cubic Ft. Coverage	Sq. Ft. Coverage	Thickness	Part A	Part B	Aggregate
0.3125	25	1/8"	.5 gallon	.19 gallon	(1) 20 lb bag & (1) 5 lb bag
0.5	40	1/8"	.75 gallon	.25 gallon	(1) 50 lb bag

Coverage rates will be affected by the condition of the surface being coated and skill of the applicator. Containers are packaged at ratio for 25 or 40 square feet and will not arrive full.

For vertical repairs, **Vertical Media** may be used to help adhesion and non-sagging. **Vertical Media** is available in 12 oz. bags and added accordingly depending on type of repair. Approximately ½ the bag may be used for thin crack repairs and the entire bag may be used for larger or thicker crack/film repairs. **Vertical Media** is to be added to the combined A&B mixture and stirred until blended. Once applied, Vertical Mender may be troweled for smoothness. Allow to dry overnight and grind, sand or shape the following day.

## Application Guidelines-

### Temperature Considerations:

- Throughout the application process the surface temperature should remain above 50°F
- Store all materials (parts 'A' & 'B' and aggregate) at 60°F - 80°F

### Surface Preparation of Concrete:

- Regard **VersaFlex** specifications for Spray Polyurea, for detailed preparation and installation procedures. Substrate priming is not required on all metals, consult **VersaFlex** for recommendations.
- Surface must be free of dirt, dust, oil, grease, chemical and other contaminants immediately prior to applying **Vertical Mender**.
- New concrete should be cured a minimum of 28 days.
- Concrete must be structurally sound and must not contain any accelerators or curing compounds.
- Remove all surface laitance and exposed sound concrete. Abrasive cleaning recommended.
- Any existing coating should be completely removed.
- Honeycomb and form voids on vertical surfaces may be filled using **Vertical Mender**.

### Priming:

- **Vertical Mender** requires the use of a primer. This step is necessary to achieve adhesion between the substrate and the blended aggregate filled epoxy being applied.
- **VersaFlex** VF 31 should be used for cooler temperatures 50°F - 70°F or **VersaFlex** VF 30 for temperatures above 70°F. Refer to the respective data sheets for application instructions.

### Mixing & Application:

- Required Tools – Jiffy type mixer & trowel
- Combine units of 'A' & 'B' into the provided 3.5 gallon pail and mix with jiffy type mixer.
- Add 20 lbs. of blended aggregate and mix until all particles are wet and composition is uniform.
- Slowly start adding from the remaining 5 lb bag of blended aggregate until desired thickness is achieved.
- Be aware that the provided 25 lbs. of blended aggregate may not all be required as viscosity will vary according to temperature.

### Safety- Review MSDS at [VersaFlex.com](http://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.