



VersaFlex Incorporated  
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# Product Data Sheet

## HM/45

### Hand Mix Polyurea

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

**Product Description-** *VersaFlex HM/45* is a hand mixable, self-leveling, 100% solids, flexible, two component, rapid curing Polyurea elastomer and ambient temperature cure spray material. Designed for coating applications or small patching where mixing by hand or pumping through non-heated plural component equipment is desirable.

**Uses-** *VersaFlex HM/45* is a superior hand mixable material designed specifically for applications requiring elastomeric qualities. **HM/45** is flexible, accommodating movement of the substrate, yet strong enough to remain intact under varying conditions except major structural dislocations. Use as low-pressure spray coating with ambient cure on all bondable surfaces. HM/45 is capable of application well below freezing and is ideal for use in cold storage facilities, freezers, and food processing plants where time and temperature are serious concerns.

#### Ideal for Applications In-

- Industrial Facilities
- Roofing
- Warehouse Floors
- Manufacturing Facilities
- Water and Waste Water Treatment
- Cold Storage Facilities
- Food Processing Facilities
- Pulp and Paper Mills
- Bottling and Canning Facilities
- Freezers
- Airports

#### Advantages-

- 100% Solids, Meets VOC Regulations
- Flexible, 450-500% Elongation
- Remains Flexible in Cold Temperatures
- Return Project to Service in 3 Hours
- Cures From -40°F to 130°F
- Odorless, No Toxic Vapors
- Hand Mixable and Brushable

#### Physical Properties-

<u>Cured Sealant Properties</u>	<u>Test Method</u>	<u>Typical Value</u>
Solids Content		100%
Shore Hardness	ASTM D2240	50 D
Elongation	ASTM D412	450 - 500%
Tensile Strength, psi	ASTM D412	3025
100% Modulus, psi	ASTM D412	1000
300% Modulus, psi	ASTM D412	1900
Tear Strength, pli, Die C	ASTM D624	478
Pot Life		3 – 4 Minutes
Tack Free		45 Minutes
Initial Cure		3 Hours
Final Cure		7 Days

## Chemical Resistance-

		Test Procedure: <b>ASTM D1308</b> 25°C Exceeds 1 Year	
*Recommended	R	<b>Test Media</b>	
* Recommended Conditionally (washdown within 1 hour of spillage)	C	Acetone	C
*Not Recommended	N	Antifreeze	R
*Suitable for immersion and/or splash and spillage conditions	1	Benzene	R
*Suitable for occasional or intermittent contact for up to 72 hours	2	Benzoic Acid	R
Test Procedure: <b>ASTM D3912</b> 25°C Exceeds 1 Year		Butyl Alcohol	R
<b>Test Media</b>		Butyl Cellosolve	R
Acetic Acid 10%	C	Carbon Dioxide	R
Ammonium Hydroxide 10%/20%	R	Calcium Hypochlorite	N
Diesel Fuel	R	Chlorine (5000 ppm in water)	2
Gasoline	R	Citric Acid	R
Hydraulic Fluid	R	Cylohexanol	R
Hydrochloric Acid 5%/10%	R	Dichloacetic Acid	C
Methanol	R	Dimethyl Formamide	N
Motor Oil	R	Ethanol	2
MTBE	1	Ethylene Glycol	1
MTBE/Gasoline 5%	R	Gasoline	R
NaCl/Water 10%	R	Hexane	R
Phosphoric Acid 10%	R	Hydraulic Oil	R
Potassium Hydroxide 10%/20%	R	Lactic Acid 10%	1
Sodium Hydroxide 10%/20%/50%	R	Methylene Chloride	C
Sugar/Water 10%	R	Methyl Ethyl Ketone	C
Sulfuric Acid 5%/10%	R	Methanol	R
Skydrol	2	Mineral Spirits	R
Toluene	C	Monobutyl Ether	R
Water	R	Nitric Acid 20%	C
2-Methylbutane	R	Phenol	2
		Skydrol	2
		Sodium Bicarbonate	R
		Sodium Chloride	R
		Sodium Hydroxide 50%	R
		Sodium Hypochlorite 10%	2
		Stearic Acid	R
		Sulfuric Acid 70%	N
		Trichloroethylene	C
		Trisodium Phosphate	R
		Toluene	C
		Vinegar	R
		Xylene	C

**Limitations-** Allow concrete surfaces to fully cure prior to application of **HM/45**. See **VersaFlex** specification. **HM/45** is an aromatic based Polyurea. Discoloration from exposure to ultraviolet light may occur, however the physical properties are unaffected.

## **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 approximate.
- Ten Gallon Kit: 5 gallons of 'A' side and 5 gallons of 'B' side.
- Two Gallon Kit: 1 gallon of 'A' side and 1 gallon of 'B' side.
- Six Hundred ML Cartridge: 300ML of 'A' side and 300ML of 'B' side packaged as a duplex cartridge. Ten cartridges per case.

## **Mixing-**

Hand Mixing: Mix in small quantities, mix equal amounts of A and B components. Mix thoroughly, until a homogeneous mix is achieved. Apply material directly to surface to be coated using a trowel or brush.

Machine Dispensing: Use 1:1 ratio pump, with or without heater as required for individual application. Low-pressure spray head should be used for ambient cure spray applications. For information contact **VersaFlex** or your local dealer.

**Colors-** Standard color is charcoal gray, light gray, or black. Consult **VersaFlex**.

**Shelf Life-** One year, in original, unopened factory containers, under normal storage conditions of 55°F to 95°F.

**Clean Up-** Cured product may be disposed of without restriction. Excess liquid 'A' and '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-** Read Material Safety Data Sheets provided with all shipments. Additional copies are available upon request from **VersaFlex** or your local dealer.

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.
- Do not use near high heat or open flame.
- Do not take internally.
- Keep out of the reach of children.
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**Preparation and Installation-** Reference **HM/45** specifications for detailed preparation and installation procedures. Substrate priming is not required on all substrates, consult **VersaFlex Incorporated** for recommendations.

## **Technical Services-Sales and Customer Support (800) 870-8842**

**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 or 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 charges or expenses of any nature incurred without its written consent.