

GVP MBI 2.0 HFO

TECHNICAL DATA SHEET



UES Report ER-968

Product Use and Design:

GVP MBI 2.0 HFO is designed specifically for use as a metal building insulation system. The minimum application method is 2x (two) 0.50" lifts or passes to obtain a 1" application thickness. The maximum single pass thickness should be limited to 1.5".

PHYSICAL PROPERTIES			
ASTM D1622	Density	2.0 lb/ft ³	8.0 kg/m ³
ASTM C518	Aged Thermal Resistance (R-value)	7.2 ft ² h°F/BTU per inch @ 1" 7.1 ft ² h°F/BTU per inch @ 3.5" and above	
ASTM D8485	VOC Re-entry	1 Hour at 10 ACH	
ASTM D8485	VOC Re-occupancy	1 Hour at 10 ACH	
ASTM 6226	Closed Cell Content	>96%	
ASTM D2126	Humid Aging 158°F / 97% RH 168 Hours	<1.4%	
ASTM E283	Air Permeance	<0.0186 L/sec per M ² @ 1.0"	
ASTM E96	Water Vapor Permeance @ 1.1"	0.98 US Perms; 1.08 US Perm Inches	
ASTM D1623	Tensile Adhesion	46 PSI	
ASTM D1621	Compressive Strength	>25 LBF/in ²	
ASTM D2842	Water Absorption	0.54%	
ASTM C1338	Fungal Resistance	Pass: no growth present	
ASTM C1029-20	Types I, II, III, IV Standard Specification	Compliant	

FIRE TEST RESULTS		
ASTM E84	Steiner Tunnel	FS ≤10; SDI ≤300
NFPA 259	Cone Calorimeter	1,850 BTU/in ² /in
ASTM E1354	Cone Calorimeter	Total 20.8 MJ/M ² , Peak 60.8 KW/M ²
ASTM D970	Floor Calorimeter	Pass
AC377	Appendix X	Pass: walls 6" ceiling 8"
NFPA 286	Spray Applied Thermal Barrier	Pass: walls 7" ceiling 10"; IFTI DC315 at 14 wet / 8 dry mils Pass: walls 7" ceiling 10"; No-Burn ThB Spray Seal at 16 wet mils

LIQUID COMPONENT PROPERTIES*		
PROPERTY	PMDI	GVP MBI 2.0 HFO RESIN
Color	Brown	Light Golden Brown to Dark Brown
Viscosity	180 – 200 cPs @ 25°C	450 – 550 cPs @ 25°C
Specific Gravity	1.23 g/cm ³	1.21 g/cm ³
Shelf Life (properly stored)	12 Months	6 Months
Storage Temperature	50 – 100°F	50 – 90°F
Mixing Ratio (Volumetric)	1:1 by Volume	1:1 by Volume

*See SDS for more information

REACTIVITY PROFILE			
Cream Time ~2 seconds	Gel Time ~4 seconds	Tack Free time ~6 seconds	End of Rise ~7 seconds

RECOMMENDED PROCESSING PARAMETERS		
Parameter	Recommended Starting Point*	Range
Initial Recirculating Setpoint Temperature	<85°F	
Initial Primary Heater Setpoint Temperature	120°F A/B	110°F – 135°F A/B
Initial Hose Heat Setpoint Temperature	120°F	115°F – 125°F
Moisture Content of Substrate	<19% moisture content	
Recommended Material Temperatures	75°F—90°F	
Maximum Lift Thickness	Maximum single pass thickness is 1.5"	

Product Formulation	WINTER		REGULAR / SUMMER	
Substrate Temperature	20°F – 40°F	40°F – 100°F	50°F – 70°F	70°F – 120°F
Initial Setpoint Temperature Hose/A/B	125°F	115°F	125°F	115°F
Setpoint Temperature Range Hose/A/B	130→115°F	120→105°F	130→115°F	125→100°F
Initial Pressure	1100psi	1100psi	1100psi	1100psi
Pressure Range	1000–1200psi	1000–1200psi	1000–1200psi	1000–1200psi
Material Temp in the Drum/Tank	75–85°F	75–90°F	75–90°F	75–90°F

General Requirements:

Polyurethane foam systems should be processed through commercially available spray equipment by a qualified professional applicator. Industry standard safety precautions and procedures regarding proper personal protective equipment and ventilation are required. Equipment must be capable of maintaining a 1:1 by volume ratio (+/- 2%) of polymeric isocyanate (PMDI) and polyol resin blend within the recommended processing parameters. Substrates should be clean, dry, and sound. No residue, oil, grease or excess dust should be present on the substrate, and moisture content of the surface should be below 19%.

Disclaimer:

The information herein is provided to assist customers and contractors in determining whether the product is suitable for their applications. Customers and contractors should test and evaluate the product to determine its fitness of use. All physical properties were determined by lab samples; field samples may vary slightly. This product as produced complies with all of Green Valley Products' quality control standards. Green Valley Products assumes no responsibility for coverage, performance, or injuries resulting from use. Liability if any is limited to the replacement of product proven to be defective. The applicator assumes the responsibility to confirm fitness of use and proper installation. No guarantees or warranties expressed nor implied, statutory by operational law or otherwise, including fitness of use or potential use are issued with this product. The foam product is combustible and must be protected in accordance with applicable codes.

