

DESCRIPTION

JM Gen IV closed-cell spray polyurethane foam (SPF) is a next generation HFO blown, two-component, medium-density, Class 1 rated, SPF insulation system. JM Gen IV is designed to insulate commercial, residential, and industrial buildings. The HFO technology allows JM Gen IV to be produced with a low Global Warming Potential (GWP) and with an Ozone Depletion Potential (ODP) of zero.

RECOMMENDED USES

- Walls (exterior and interior)
- Floors
- Ceilings
- Unvented Attics
- Vented Attics
- Crawl Spaces

PERFORMANCE ADVANTAGES

- Improves Energy Efficiency
- Provides an Effective Air Barrier
- Increases Racking Strength
- Exceptional Adhesion
- Minimizes Sound Transmission

PHYSICAL PROPERTIES

Property	Test Method	Value
R-Value per inch	ASTM C518	6.9 (°F•ft ² •h/BTU)
R-Value at 3"		21 (°F•ft ² •h/BTU)
Core Density	ASTM D1622	2.0 lb/ft ³
Compressive Strength	ASTM D1621	47 psi
Closed-cell Content	ASTM D2856	> 90%
Water Absorption	ASTM D2842	< 2% by volume
Water Vapor Permeance	ASTM E96	0.81 perms at 1", 0.23 perms at 3.5"
Air Impermeable	ASTM E2178	< 0.02 (L/s-m ²) at 1"
Dimensional Stability	ASTM D2126	<9%
Tensile Strength	ASTM D1623	60
Sound Transmission Coefficient	ASTM E90-85/E413	41
Emissions	GREENGUARD GOLD GREENGUARD	Pass Pass

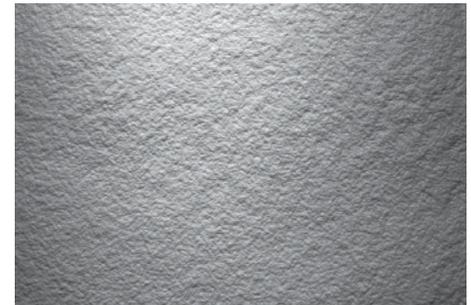
FLAMMABILITY CHARACTERISTICS*

Property	Test Method	Value
Flame Spread Index	ASTM E84	Class I < 25
Smoke Developed Index		Class I < 450
Commercial Fire Resistance	NFPA 285	Assembly Passed
TPR2 Thermal Barrier	NFPA 286	Assembly Passed
DC 315 Thermal Barrier		
Attics & Crawl Space Walls & Roof Uncoated Thickness	AC377 Appendix X	Pass

* These items are provided as general information only. They are approximate values and are not part of the product specifications.

HEALTH AND SAFETY

For information on Health and Safety, refer to Johns Manville Safety Data Sheets and the Spray Polyurethane Foam Alliance Health and Safety guidance documents at <https://spraypolyurethane.org>.



APPROVALS / COMPLIANCES

- International Building Code (IBC) Type V Construction
- 2018, 2015, 2012, 2009 International Residential Code (IRC)
- 2018, 2015, 2012, 2009 International Energy Conservation Code (IECC)
- IAPMO ES #700
- ASTM C1029 (Type II), Standard Specification for Spray-Applied Rigid Cellular Polyurethane Thermal Insulation
- Appendix X approval for application in unoccupied attics and crawl spaces without a prescriptive ignition barrier or coating
- Meets ICC-ES AC377 Acceptance Criteria for Spray-Applied Foam Plastic Insulation VOC Emission Testing Compliance
- JM Gen IV has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP)

REOCCUPANCY

- All occupants must vacate the building or the spray area must be cordoned off and remain separated from the occupied space for 24 hours after application
- The application area should be properly ventilated during application and for 24 hours post application
- Re-entry time for non-SPF trade workers: 12 hours
- Re-entry time for building occupants: 24 hours

PACKAGING

- 55 Gallon Drum (1,000 lbs per set)



The Installation Guide and the Side A and Side B Safety Data Sheets must be read prior to product application.

SUGGESTED PROCESSING PARAMETERS

Drum Storage Temperature	50° – 80°F (10° – 27°C)
Drum Temperature During Application	65° – 80°F (18° – 27°C)
Proportioner Preheat Temperature	Side A 115° – 140°F (46° – 60°C) Side B 115° – 140°F (46° – 60°C)
Hose Temperature	115° – 140°F (46° – 60°C)
Surface Temperature (Summer)	45° – 120°F (7° – 49°C)
Surface Temperature (Winter)	20° – 70°F (-7° – 21°C)
Viscosity at 75°F	A: 250 cps B: 650 cps

The initial settings are a guideline and ambient and substrate temperatures may require settings outside of the suggested range. Under no circumstances should a temperature of 140°F be exceeded without first contacting a JM technical representative.

STORAGE AND SHELF LIFE

JM Gen IV Side A and Side B should be stored between 50 – 75°F. Side A has a 12-month shelf life, and Side B has a 6-month shelf life when properly stored.

DRUM TEMPERATURE

Material will perform better if applied when environmental temperatures fall between 65-80°F(18-27°C). If environmental temperatures fall outside this range, we recommend drums be placed in a room that is between 65-80°F(18-27°C) for two days to acclimate to ensure coverage is optimized.

MIXING / RECIRCULATION

JM Gen IV should NOT be mixed or recirculated. Mixing or recirculating JM Gen IV will lead to loss of blowing agent.

HUMIDITY

Care should be taken if the relative humidity is greater than 80%. Excessive humidity will adversely affect system performance and physical properties.

PRESSURE SETTINGS

The finished foam properties are affected by both temperature and pressure settings. The goal of 1100 psi minimum at the gun when the trigger is pulled is an important part of proper mix. If your equipment monitors the pressure at the gun, set the pressure to 1100 psi. If your equipment monitors the pressure at the machine, you will need to account for pressure drop as the material travels through the hose. This pressure drop can vary depending on several parameters, however, most installers use the rule of thumb that pressure drop is equal to 1 psi per foot of hose. Therefore, set the pressure at the machine so that when you pull the trigger, the pressure maintained is the target gun pressure (1100 psi) plus the pressure drop across the hose length. For example, a machine with 260 feet of hose should have a dynamic spray pressure of 1360 psi (1100 + 260).

PASS THICKNESS

JM Gen IV may be applied in a single pass from a minimum of 0.5" to a maximum of 4.0". Multiple immediate passes, with no wait time, may also be applied as follows:

R-Value	R-28	R-34	R-41
Number of Immediate Passes	1	2	3
Thickness per Pass (in)	4.0	2.5 / 2.5	2.0 / 2.0 / 2.0
Maximum Total Thickness (in)	4.0	5.0	6.0

Ambient temperature must be at least 40°F for multiple immediate pass installation. For application thicknesses above 6", wait 30 minutes between passes (e.g. for a 7" total thickness, install two 3.5" lifts waiting 30 minutes between the passes).

SHUT DOWN

For breaks in application longer than 60 minutes:

1. Park the proportioner according to the manufacturer's instructions.
2. Close the fluid shut off valves on the gun and grease the spray gun according to the manufacturer's instructions when applicable.

PARTIAL DRUM POUR-UP

Residual materials should be properly handled and transferred to a new drum immediately and used within 3-5 days. Collecting multiple partially full drums to combine later is not a recommended practice and may result in poor quality foam.