

COMPANY

Johns Manville, a Berkshire Hathaway company, was founded in 1858. Our ownership by Berkshire Hathaway, one of the most admired companies in the world and one of the most financially secure, allows JM to invest for the future. This enables JM to continue delivering the broadest range of insulation products in the industry and offering innovative solutions that meet your needs.

DESCRIPTION

JM Corbond® Open-cell Spray Polyurethane Foam (oc SPF) insulation is a two-component, low-density, Class 1 rated, nonstructural insulation system designed for interior commercial, residential and industrial applications. JM Corbond oc SPF is 100% water blown. Its high yield, superior performance, and exceptional sprayability make it an ideal choice for high-performing energy efficient buildings.

PERFORMANCE ADVANTAGES

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

RECOMMENDED USES

- Walls
- Unvented Attics
- Floors
- Vented Attics

INSTALLER ADVANTAGES

- Superior Sprayability
- High Yield
- Wide Processing Window
- Low Application Odor

- Ceilings
- Crawl Spaces

PHYSICAL PROPERTIES*

Property	Test Method	Value
R-value at 1"	ASTM C518 (aged)	3.8 (°F•ft²•h/BTU)
R-value per inch at > 3.5"	ASTM C518 (aged)	3.6 (°F•ft²•h/BTU)
Core Density	ASTM D1622	0.5 pcf
Open-cell Content	ASTM D6226	> 92.7%
Tensile Strength	ASTM D1623	4.7 psi
Dimensional Stability	ASTM D2126	-4.1% Change in Volume
Air Permeance at 75 Pa (3.75")	ASTM E90	< 0.02 (L/s)/m
Sound Transmission Coefficient	ASTM E413	38** (STC)
Emissions		
School Classroom	CA Specification 01350	Pass
Private Office	CA Specification 01350	Pass
Single Family Residence	CA Specification 01350	Pass

FLAMMABILITY CHARACTERISTICS***

Property	Test Method	Value
Surface Burning at 4"	ASTM E84	Class 1
Flame Spread Index	ASTM E84	Flame Spread Index < 25
Smoke Developed Index	ASTM E84	Smoke Developed Index < 450
Commercial Fire Resistance	NFPA 285	Assembly Passed
TPR2 Thermal Barrier	NFPA 286	Assembly Passed
DC 315 Thermal Barrier	NFPA 286	Assembly Passed
TPR2 Ignition Barrier	NFPA 286 Appendix X	Assembly Passed
DC 315 Ignition Barrier	NFPA 286 Appendix X	Assembly Passed
Unvented Unoccupied Attics	Special Approval	> 3.75" thickness

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

** Residential exterior wall with 16" o.c. 2x4 wood studs, OSB sheathing, and ½" gypsum board. STC 40 with fiberboard siding.

*** Numerical flame spread and all other data presented are not intended to reflect the hazards presented by this or any other material in actual fire situations.



APPROVALS / COMPLIANCES

- 2015, 2012, 2009 International Building Code (IBC) Types I, II, III, IV, V Construction
- 2015, 2012, 2009 International Residential Code (IRC)
- 2015, 2012, 2009 International Energy Conservation Code (IECC)
- 2013 Abu Dhabi International Building Code (ADIBC)
- ICC-ES AC377 Acceptance Criteria for Spray-Applied Foam Plastic Insulation
- California Department of Public Health VOC Emission Testing Compliance
- Intertek Code Compliant Research Report CCRR-1079
- IRC Section 316.6, Ignition barrier not required in unvented and unoccupied attics per CCRR-1079 section 4.4.2.3

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 (950 lbs per set)
- 250 Gallon Tote (4,740 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	40° - 85°F (4° - 29°C)
Drum Preheat Temperature	75° - 95°F (24° - 35°C)
Surface Temperature	45° - 120°F (7° - 49°C)
Proportioner Temperature	105° - 135°F (43° - 57°C)
Hose Temperature	105° - 135°F (43° - 57°C)
Maximum Agitator Working Pressure	100 psi
Maximum Agitator Speed	500 rpm
Proportioner Pressure (Dynamic)	800 - 1450 psi
Viscosity at 77°F	300 cps "B"

The initial settings are a guideline and ambient and substrate temperatures may require settings outside of the suggested window.

DRUM TEMPERATURE

Material will perform better when its temperature is between 75° - 95°F. Drums may be placed into a heated room for two days before use to acclimate. Alternatively, material may be preheated by recirculating during the 20 - 25 minute mixing stage of setup; set the machine heaters at 135°F and then pump material through the proportioner and back to the drums via circulation lines or a re-circulation manifold. Caution must be exercised to avoid cross-contamination. See "JM Corbond SPF Change-Over Procedure" for more information.

MIXING / RECIRCULATION

JM Corbond oc SPF should be mixed thoroughly prior to application; continuous mixing during application is not necessary. If recirculation is being used as a means of heating the material in the drum, the drum should be agitated for 1 - 2 minutes before beginning recirculation. Adequate mixing before beginning spray is critical to successful application.

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 1000 psi at the gun when the trigger is pulled is an important part of proper mix. To achieve, you must take into account the pressure drop from the machine to the gun. A rough rule of thumb (depending on several parameters) is that the pressure will drop approximately 1 psi per foot of hose. Therefore, set the pressure at the machine so that when the trigger is pulled, the pressure maintained is the target gun pressure plus the pressure drop across the hose length. For example, a machine with 260 feet of hose should have a dynamic spray pressure of 1260 psi.

PASS THICKNESS

JM Corbond oc SPF may be applied in passes of uniform thickness from a minimum of 1". Open cell spray foam is different from closed cell spray foam; the finished product does not retain heat so there is no need to limit pass thickness. The greatest limiting factor in pass thickness with open cell is that if the applicator attempts to spray back into the rising foam, the foam will blow out of the cavity. Given the right conditions, a pass thickness of as much as 12" may be possible. Cooling time between passes is not necessary.

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 for use within 3 - 5 days. Collecting multiple partially full drums for combining later is not a recommended practice and may result in poor quality foam.

STORAGE AND SHELF LIFE

JM Corbond oc SPF Part A and Part B should be stored between 40 - 85°F. Part B has a 6 month shelf life, and Part A has a 12 month shelf life when properly stored.