



PRODUCT DATA SHEET

DESCRIPTION

JMTC (Johns Manville Thermal Coating), also known as Fireshell® TC intumescent coating, is a single-component, water-based intumescent coating designed for application as a thermal barrier over JM open- and closed-cell spray foam products. JMTC is formulated for application over polyurethane foam to reduce heat transfer and surface burning in the event of a fire.

UNIQUE PROPERTIES

JMTC is formulated to adhere to polyurethane foam and a variety of other substrates. JMTC, when installed properly, will serve as a thermal barrier equivalent in lieu of an otherwise code-prescribed thermal barrier, such as ½" gypsum.

GENERAL APPLICATION INSTRUCTIONS

JMTC may be applied by medium-nap rollers, brushes or conventional or airless spray equipment designed to handle a tip size of 0.023 inches. Airless spray application is most efficient, whereas rolling or brushing may be used for touch-ups. CONTACT JM TECHNICAL SERVICE PERSONNEL FOR SPECIFIC RECOMMENDATIONS, PRICING AND AVAILABILITY. Apply JMTC only to clean, dry, sound surfaces, free of loose particles or other foreign matter that may interfere with the adhesion of the coating. Backrolling sprayed material may be necessary to fill pinholes in coating. Final cured dry film thickness should be free of excessive voids, pinholes, holidays, cracks or blisters. COATING APPLICATION SHOULD BE SUSPENDED IMMEDIATELY AND JM TECHNICAL SERVICE PERSONNEL CONTACTED IF THE RESULTS OBTAINED ARE LESS THAN DESIRABLE.

To be an effective thermal barrier, JMTC should be applied to JM ocSPF at a minimum application rate of 1.0 gallons per 86 square feet and minimum dry film thickness of 12 mils (12 mils equates to a wet film thickness of 18 mils). Rough surface profiles, which increase total surface, will require a proportionate increase in the amount of JMTC to satisfy specified minimum dry mil thickness. To be an effective thermal barrier, JMTC should be applied to JM Corbond closed-cell products at a minimum application rate of 1 gallon per 82 square feet and minimum dry film thickness of 12 mils (12 mils equates to a wet film thickness of 20 mils). Rough surface profiles, which increase total surface, will require a proportionate increase in the amount of JMTC to satisfy specified minimum dry mil thickness.

Limitations and Precautions

JMTC is a water-based intumescent coating that will freeze and become unusable at temperatures below 32°F.

Protect from Freezing During Shipment and Storage. Do not store material at temperatures below 45°F. Do not apply JMTC when ambient air and substrate temperatures fall below 55°F or when there is a possibility of temperature dropping below 32°F within a 24-hour period after application.

Do not apply over wet substrates. Total cure of JMTC requires complete evaporation of water. Cool temperatures and high humidity retard cure. Therefore, do not apply if weather conditions prevent complete cure before freezing temperatures. JMTC is not a vapor barrier coating and not recommended for use over most cold storage installations. Where a vapor barrier is required, contact JM Technical Service Personnel for proper selection and installation procedures.

JM TC Thermal Barrier Coating General Safety, Toxicity, Health Data

Material Safety Data Sheets are available on this coating material. Any individual who comes in contact with these products should read and understand the MSDS.

Cleanup: Water

Eye Protection: Safety glasses, goggles or a face shield are recommended.

Skin Protection: Chemical-resistant gloves are recommended. Cover as much of the exposed skin as possible with appropriate clothing.

Respiratory Protection Is Mandatory! Respiratory protective equipment, impervious footwear and protective clothing are required at all times during spray application.

Ingestion: Do not take internally. Consider the application and environmental concentrations in deciding if additional protective measures are necessary.





JM TC THERMAL BARRIER INTUMESCENT COATING FOR JM SPRAY FOAM



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FIRESHELL® TC

PHYSICAL PROPERTIES

Volatiles/VOC(g/l)	Below 50 g/l SCAQMD & EPA
Flame Spread & Smoke	ASTM E84 Class 1 (<25fs, <50s)
Solvents, Toxicity	None, water based, nontoxic
Environmental Impact	Green product per greenguide.com
Weight per Gallon	11.5lbs ± 0.3lbs
Colors	Off-white and charcoal black stock (custom available)
Application Time	JM TC may be applied to SPF within 3 hours of SPF install completion
Dry Times	To touch 90 minutes, 1–2 hours between coats, see Drying Conditions below
Drying Conditions*	- cross-ventilation always required - mechanically dehumidify if 60% rh or greater is present - fully cures in three weeks
Recommended Equipment	Airless: Graco 695–2200 psi at tip with 3/8" line Gun: Graco HD texture gun p/n 241705 Tips: 0.023–0.025
Sag Resistance	35+ mils walls, 20+ mils on ceilings (for reference)
Mold & Fungi Resistance	ASTM 3273 Excellent
Spraying Temps	55°–95°F ambient interior, coating must be kept above 62°F
Container Sizes	5-gallon pails or 55-gallon drums
Shelf Life	1 year from date of manufacture, store above 45°F
Washability	ASTM D2486 Scrub Resistance > 1100 cycles ASTM D4585 Moisture Resistance, 100 hours

*See www.tpr2.com "ventilation procedure."

RECOMMENDED WFT-DFT, COVERAGE RATES, WALL & CEILING FOAM THICKNESSES:

FOAM	WFT mils	DFT mils	SF/gal	WALL	CEILING
JM OC SPF	20	12	86	7½"	11½"
JM CORBOND MCS™ SPF	20	12	83	7½"	9½"
JM CORBOND III® SPF	20	12	82	6"	9"

DISCLAIMER

The data presented herein is not intended for use by nonprofessional applicators or those persons who do not purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer.

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Visit our website at specJM.com or call **1-800-654-3103** | **Building Insulation Division** P.O. Box 5108 | Denver, CO 80217-5108
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