

There is a Johns-Manville Sales Office near you...

Your J-M representative will be glad to call at your convenience.

AKRON 2, OHIO
227 West Exchange St.

ALBANY 5, N. Y.
Maplewood & Krafi Aves.

*ATLANTA 3, GA.
101 Marietta St.

BALTIMORE 3, MD.
St. Paul Pl. & Franklin St.

*BOSTON 16, MASS.
100 Newbury St.

BUFFALO 2, N. Y.
220 Delaware Ave.

CHARLESTON 7, W. VA.
48\ Terminal Bldg.

CHARLOTTE 2, N. C.
213-224 S. Tryon St.

*CHICAGO 54, ILL.
Merchandise Mart Plaza

*CINCINNATI 2, OHIO
Central Pkwy. at Walnut St.

*CLEVELAND 15, OHIO
45 Prospect Ave., N.W.

COLUMBUS 15, OHIO
12 N. Third St.

CORPUS CHRISTI 7, TEXAS
1721 N. Mesquite St.

DALLAS 12, TEXAS
1019 Dragon St.

DAYTON 2, OHIO
31 W. Monument Ave.

*DENVER 2, COLO.
1755 Glenarm Pl.

DETROIT 2, MICH.
W. Grand Blvd. at 2nd Blvd.

ERIE, PA.
1001 State St.

FORT WAYNE, IND.
1601 S. Hanna St.

GRAND RAPIDS 2, MICH.
702 Building and Loan Bldg.

HONOLULU 2, T. H.
P. O. Box 3140

*HOUSTON 4, TEXAS
3115 Bladgett St.

INDIANAPOLIS 4, IND.
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2010 McGee St.

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LOUISVILLE 7, KY.
131 Breckenridge Lane

*MILWAUKEE 9, WIS.
4760 North Teutonia Ave.

MINNEAPOLIS 16, MINN.
5407 Excelsior Blvd.

*NEW ORLEANS 19, LA.
2400 Canal St.

*NEW YORK 16, N. Y.
270 Madison Ave.

OAKLAND 9, CALIF.
430—40th St.

OMAHA 2, NEB.
918 Farnam Ave.

*PHILADELPHIA 3, PA.
1617 Pennsylvania Blvd.

*PITTSBURGH 19, PA.
2228 Keppers Bldg.

PORTLAND 5, ORE.
1220 S.W. Morrison St.

PROVIDENCE 3, R. I.
111 Westminster St.

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2714 Market St.

*District Office

Johns-Manville

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22 East 40th Street, New York 16, N. Y.

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J-M Insulating Cements

For temperatures as noted (see tables)

Johns-Manville Insulating Cements possess excellent coverage, finishing, insulating and protective finishing properties. They are especially suitable for insulating irregular surfaces such as valves, flanges, heating furnaces, kettles, etc., where it would be impracticable to apply pipe insulation, sheets or blocks. . . . Finishing cements are generally used over insulation to provide a smooth, attractive finish or a surface to which canvas may be applied. On heated equipment, the cements should be applied at equipment operating temperature.

The J-M Insulating Fills are used for irregular spaces where insulation in regular forms is impracticable.

See table on reverse of this sheet for maximum service temperatures and other pertinent data.

Finishing Cements

No.301 Cement is a hydraulic-setting, insulating and finishing cement especially designed for one-coat application to desired thickness. Because of extremely low drying shrinkage, it hardens in a few hours to a smooth, crack-free surface. It may be painted with a water-base paint as soon as firm, thus permitting completion of the job at one time. No.301 is recommended for insulating small steel (not copper, brass or aluminum) pipe fittings and as a finish over block insulation. It should not be applied to surfaces below 32 F or above 150 F. When applied to a heated fitting, the cement should be "spotted on" and held momentarily to allow steam to escape. The desired thickness may then be applied over the "spotting." Since No.301 hardens quickly, no more cement should be mixed than will be used within two hours.

No.302 Cement, made of asbestos fiber and binding materials, is a high-grade finishing cement that is easy to mix and apply. It produces a hard, durable, attractive surface which does not crack, break or peel off.

No.352 Cement is an all asbestos fiber cement with good troweling and finishing properties. It is used as a finish over block insulation and for general utility purposes. For a hard finish, No.352 may be mixed two (2) parts by weight to one (1) part portland cement. This mixture is required when used as a smoothing coat under Insulkote ET or EC weatherproof coatings.

No.0352 Cement is a factory-made cement suitable for many requirements of the plumbing and steamfitting trade.

Insulating Cements

Superex® Insulating Cement is Superex in cement form for pointing up Superex blocks or for use on irregular surfaces.

No.500 Cement is an expanded vermiculite insulating cement. It has exceptionally high covering capacity combined with good working and insulating qualities. It has good adhesion and can be applied in thick coats.

No.450 Cement is a mineral wool cement with good covering capacity and excellent adhesion to both hot and cold surfaces. It is a very good insulator compared with other cements, and its excellent adhesion permits ready application in thick layers. No.450 also contains a rust inhibitor. For a hard outer finish, a mixture by weight of one (1) part No.450 and three (3) parts portland cement is used.

J-M 85% Magnesia Cement is 85% Magnesia in cement form for pointing up 85% Magnesia blocks. Has high insulating value compared to other cements.

Protective-Finishing Cements

No.678 Cement, a hydraulic-setting, semi-refractory finishing cement, is used as a protective coating over block insulation linings exposed to gases in flues, breechings and stacks. Where erosive action is severe as in pulverized coal units and particularly in areas where the gases change direction sharply, the cement should be protected with temperature-resistant metal.

No.319 Cement is a heat-setting, semi-refractory finishing cement for use in setting and sealing Superex blocks in rotary kilns.

Insulating Fills

Fibrofil® is a mixture of diatomaceous silica and long fiber asbestos. Due to the asbestos fiber, this material has certain characteristics different from the ordinary powdered fills. The fibers offset any tendency to settle or filter through cracks, making the material well adapted for use as a fill on gas generator sets, etc.

Fil-Insul is used as an insulating fill in irregular spaces where insulation in block or brick form is not practicable and where a resilient high-grade fill is needed. It will permit considerable expansion and contraction because of its fibrous nature which also serves to prevent any settling or sifting through cracks.

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PLAINTIFF'S EXHIBIT JM-2319

Data on Johns-Manville Insulating Cements

Designation of Product	General Use of Product	Character or Base	Maximum Service Temperature, F	Covering Capacity, Applied and Dried, 1" Thick		Approx. Gal of Water to Mix		Packaging, lb per Bag
				Sq ft/100 lb	Sq ft/Bag	100 lb	per Bag	
No.302	Finishing	Asbestos	1000	25	25	21	10.5 or 21	50 or 100
No.352	"	"	1000	19	9½ or 19	12	6 or 12	50 or 100
No.0352	"	"	1000	19	19	12	6 or 12	50 or 100
No.301	Insulating-Finishing	(one-coat application)	1400	36	18	15	7.5	50
Superex	Insulating	Diatomaceous Silica	1900	45	56	30	22.5	75
No.500	"	Expanded Vermiculite	1800	78	39	36	18	50
No.450	"	Mineral Wool	1500	50	25	30	15	50
85% Magnesia	"	Magnesium Carbonate	600	70	35	54	27	50
No.678	Protective-Finishing	Semi-Refractory	1900	20	10	9	4.5	50
No.319	"	"	1600	15	7½	7.2	3.6	50

Data on J-M Fills

Name of Product	Use of Product	Composition or Base	Maximum Service Temp, F	Approx. Density (Normal Packing) lb per cu ft	Packaging, Bags, lb
Fibrofill	Fill	Mixture of diatomaceous silica and asbestos fibers	1800	18	80
Fil-Insul	Fill	Mixture of mineral fibers	1000	15	65

J-M Fibrous Adhesive

In applying sheet, block or brick insulation to flat surfaces, as well as to curved surfaces of large diameters, it is necessary, in a majority of cases, to hold the insulation temporarily in place.

J-M Fibrous Adhesive successfully replaces other temporary binding methods, being applied easily and rapidly and yet furnishing a moderately strong and effective support until the insulation is secured in place by the permanent panel or finish.

The adhesive is recommended for use where insulation is applied to brick, concrete, metal or other surfaces, and as a satisfactory adhesive for binding insulating blocks together in multiple layer construction. For maximum adhesion, it should be used at sufficiently high temperatures to dry thoroughly.

For temperatures between 250 and 500 F, Fibrous Adhesion may be used as the principal means of attachment of insulation directly to the surface of ducts, flues, etc. In such cases, however, a secondary support should always be provided, such as cables or mesh wire, tightly laced over the surface of the blocks.

Fibrous Adhesive is applied to the face of the insulating material, which is then pressed in place against the surface to be insulated. It is unnecessary to coat the entire face of the insulation if only temporary support is required, as spotting of the adhesive is usually sufficient.

Only a sufficient thickness of the adhesive to obtain a thin film for bonding need be used; however, the thickness required depends largely upon the smoothness of the surface. Bare metal surfaces require less adhesive than is necessary for application of insulation to brick or concrete or to other insulation.

All paint *must* be removed before insulation can be applied by Fibrous Adhesive, or the insulation will loosen after the adhesive dries out.

In estimating, the following covering capacities per approximately 100 sq ft of surface may be used: For adhering insulation to metal surfaces, 50 lb; to brick, concrete or other insulation, 75 lb.

Fibrous Adhesive is supplied ready for use, in various-sized containers.

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