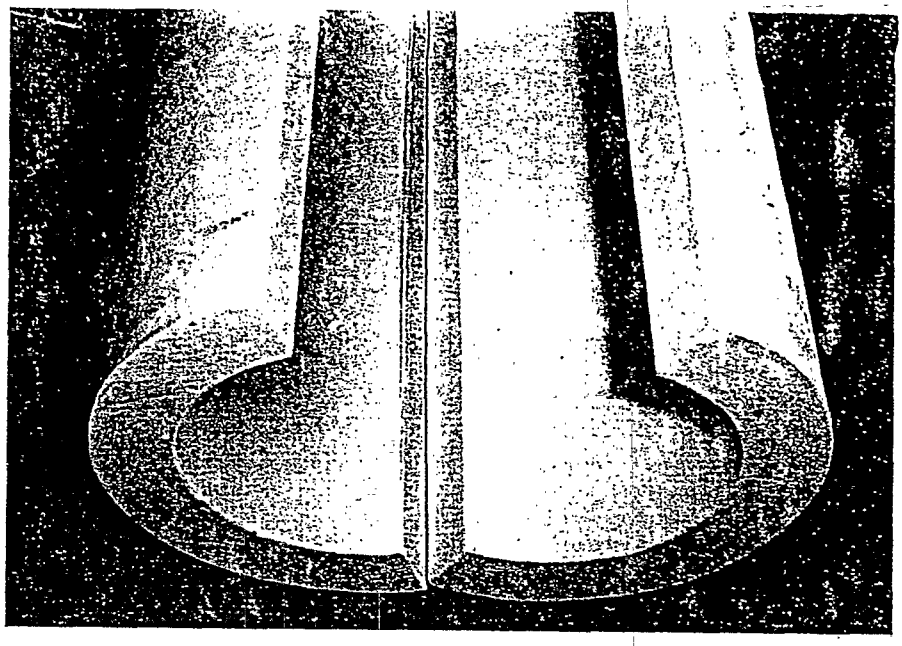
Johns-Manville

Type: Pipe & Block

Temp. Limit: 1500F

Thermal Insulation Products



J-M THERMO-12*

asbestos-free pipe and block insulation

DESCRIPTION: A molded, high temperature pipe and block insulation, J-M Thermo-12 is composed of hydrous calcium silicate. It is an insulating material which, because of its light weight, low thermal conductivity, great structural strength and insolubility in water, is ideal for high temperature piping and equipment.

AVAILABLE FORMS: Thermo-12 is furnished in both sectional pipe insulation and block form. The pipe insulation comes in a complete selection of sizes up to 24″ x 4″ half sections. Pipe sizes 25″ through 33″ are available in quad segments. Scored blocks 12″ x 36″ in thicknesses from 1½″ to 3½″ are available for application on curved surfaces representing a diameter range from 34″ through 180″. Scored blocks are furnished with three equally spaced scores. Beveled blocks are also available in widths of 6″, 12″, and 18″, by 36″ lengths, in a full range of thicknesses.

USES: Especially recommended for use in the power generation and process industries on indoor and outdoor piping and equipment operating at temperatures to 1500F. Thermo-12 is light enough for easy handling and fast application. Repeated wettings have no permanent effect on it which makes it ideal for installations subjected to weather, or for insulating underground steam lines. Because it will not burn or carry flame, it may also be advantageously specified for use in the presence of inflammable gases and liquids.

ADVANTAGES:

Exceptional Strength

Similar in chemistry and composition to a very fine concrete, Thermo-12 will withstand unusual operating abuse without appreciable damage.

Extreme Lightness

Thermo-12 is as light as many insulating materials possessing a fraction of its strength and durability.

Not Damaged by Water

Can be soaked in water without damage. After drying, conductivity will be as good as new.

Easy Application

Thermo-12 is purposely made in large blocks and half-sections to facilitate handling and reduce number of joints.

Low Conductivity

Thermo-12 offers one of the lowest *k* factors of all insulations in general use throughout the power generation and process industries.

Low Chloride Content

Thermo-12 has a low chloride content and can be used on Austenitic stainless steel without problems since it meets MIL-I-24244 Amendment 3 for chloride content.

*J-M Trademark

IND-3014 6-73

THERMO-12 PIPE & BLOCK INSULATION

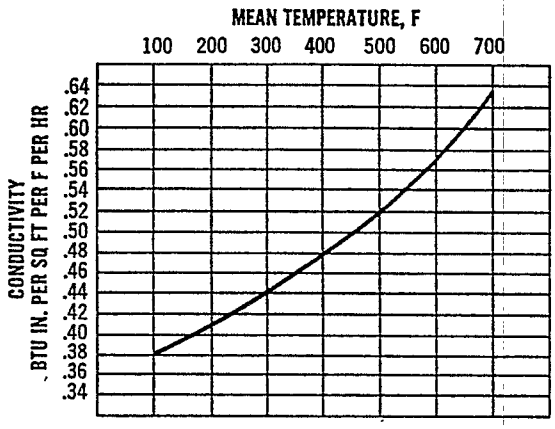
Specification Data*

PHYSICAL PROPERTIES

Density (dry)	13 lbs per cu ft
Transverse Strength (modulus of rupture)	80 psi
Compressive Strength (based on 2" thickness of block)	165 psi to produce 5% compression
Linear Shrinkage	1.1% after 24-hr soaking period at 1500F
Maximum Service Temperature	1500F

*The physical and chemical properties of Johns-Manville Thermo-12 represent typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Check the Johns-Manville district office to assure current information.

THERMAL CONDUCTIVITY
(Btu in. per sq ft per F.per hr)



COMPLIANCE WITH GOVERNMENT SPECS

Pipe Insulation:
MIL-I-2781
- Grade I, Class b, to 600F (except k at 200F)
- Grade II, Class d, to 750F (except k at 200F)
- Grade III, Class e, Type I and II, to 1200F

HH-I-523 Type II, Class A and B, to 1200F
MIL-I-24244, Amendment 3
U.S. Coast Guard Certificate of Approval 164.009/163/0

Block Insulation:
MIL-I-2819
- Class 1, to 600F (except k at 200F)
- Class 2, to 1200F
- Class 3, to 1500F

HH-I-523 Type I, to 1200F

COMPLIANCE WITH ASTM STANDARDS

Pipe and Block Insulation:

C533, to 1200F

Johns-Manville

Greenwood Plaza • Denver, Colorado 80217

Sales Offices in Principal Cities