PLAINTIFF'S
EXHIBIT
K-1484

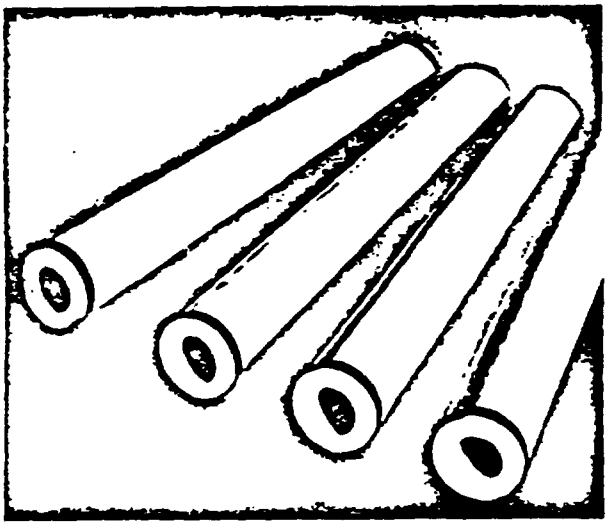
JOHNS-MANVILLE INSULATIONS, WEATHERPROOFING AND ACCESSORY MATERIALS FOR OIL REFINERIES AND CHEMICAL PROCESS PLANTS

DEFENDANT'S
EXHIBIT
OE-54

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J-M INSULATIONS

*SUPEREX—Superex block and pipe insulation is made from calcined diatomaceous silica blended with other insulating materials and bonded with asbestos fiber. It combines high heat resistance and insulating value for the temperature range from 600F to 1900F, and is easy to cut and apply. As Superex Combination Insulation, Superex reduces the temperature on the outer layer of J-M 85% Magnesia This combination insures the lowest overall heat loss from high temperature piping and equipment. Blocks are furnished flat as well as curved to a specified radius: pipe insulation is supplied in nominal thicknesses to fit standard pipe sizes.



J-M 85% Magnesia Pipe Insulation.

J-M 85% MAGNESIA—The standard material for temperatures to 600F, J-M 85% Magnesia block and pipe insulation is composed of hydrated basic carbonate of magnesia and asbestos fiber. Like Superex, it is easily cut and fitted to irregular surfaces. Blocks are furnished flat or curved: pipe insulation is made in sectional and segmental form in nominal thicknesses to fit standard pipe sizes.

*THERMOBESTOS—Thermobestos block and pipe insulation, for temperatures to 1200F, is made by a special Johns-Manville process, and composed of hydrous calcium silicate combined with asbestos fiber. Blocks are furnished flat or curved; and pipe insulation in single or double layer and nominal thicknesses to fit standard pipe sizes. For the range of temperatures from 600F to 1200F, as noted in the specifications, Thermobestos should be applied in double-layer construction with staggered joints.

*BANROC BLANKETS—Style No. 112 is composed of felted mineral wool, secured between 1 in. galvanized wire mesh on one side and expanded metal lath on the other. Banroc Blankets are adaptable for flat or curved surfaces at temperatures to 1000F under normal conditions. Other styles are available with various types and combinations of metal fabrics.

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INSULATING CEMENTS—No. 450 is a mineral wool base insulating cement for temperatures to 1500F. It has high covering capacity, excellent adhesion, good insulation value and is used for insulating irregular surfaces, such as valves, fittings and flanges. Coverage, approximately 50 sq ft per 100 lb for 1 in. thickness. (On large flat or curved surfaces where blocks are adaptable, they should be used because of their greater insulating value).

No. 352 and No. 302 asbestos-fiber base cements trowel to a smooth durable surface for insulation finish. They are also used for insulating small fittings. Coverage, No. 352, approximately 19 sq ft per 100 lb for 1 in. thickness; No. 302, approximately 25 sq ft per 100 lb for 1 in. thickness.

No. 301 is a one-coat application, hydraulic-setting cement used for insulating small pipe fittings.

*ZEROLITE—For low temperature insulation to temperatures of −400F, Zerolite has exceptional resistance to moisture, fire and organic solvents, combined with low conductivity. It is manufactured from mineral wool, with a resin binder, in plain or scored sheets and lagging, for flat or curved surfaces. Sectional pipe insulation is furnished with an integral jacket of asphalt-saturated asbestos felt with lap for sealing the longitudinal joint, and strips for sealing end joints. Lagging is applied over sectional pipe insulation when greater thicknesses are required.

*ROCK CORK—Rock Cork sheets, lags and pipe insulation for temperatures to −400F, are composed of mineral wool, combined with an asphaltic binder. High resistance to moisture maintains Rock Cork's original low conductivity and adds to service life. Its structure permits ready handling, at the same time conforming to irregularities in the surface being insulated. Rock Cork is furnished in the same forms and applied in the same manner as Zerolite.

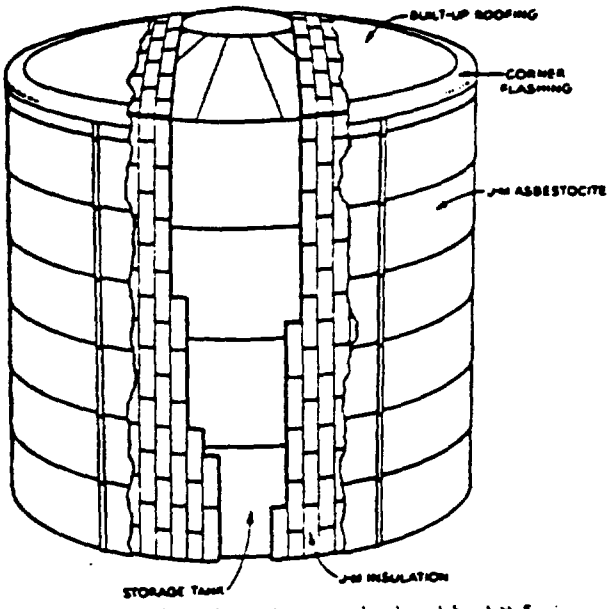
*ROCK CORK GRANULATED—Rock Cork in granular form is used to fill and pack spaces behind low temperature insulation.

*ZEROTEX—Used for insulating low temperature fittings, Zerotex is a felted mineral wool combined with a water resistant binder, furnished in blanket form, and cut to size on the job. Zerotex is a companion material to Rock Cork and Zerolite pipe insulations.

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J-M WEATHERPROOFING AND ACCESSORY MATERIALS



Johns-Manville Asbestocite casing was developed by J-M Engineers especially for the weather protection of insulation on outdoor tanks and vessels.

*ASBESTOCITE SHEETS—Strong, flexible sheets with a smooth, hard surface, formed under high pressure from asbestos fiber and cement. An incombustible finish, or casing, of large Asbestocite sheets can be quickly and easily applied over insulation on tanks or vessels.

*INSULKOTE ET—A durable, black, weatherproof, troweled-in-place coating for outdoor insulation, made from asphalt emulsion containing asbestos fiber and fillers. Applied over incombustible insulation, it does not transmit a flame. Coverage, approximately 55 sq ft per 100 lb for 1/4 in. (1/8 in. dried) thickness.

INSULKOTE ST—For sealing, flashing and coating insulation and roofing felt surfaces. It is a tough, astic, asbestos fiber, filler and solvent asphalt coating with minimum drying shrinkage. Applied by troweling place. Coverage, approximately 100 sq ft per 80 lb for 1/8 in. thickness.

OUBLE COATED FLEXSTONE*—A heavy asphalt-saturated and coated asbestos felt for weatherroof jackets on pipe insulation. Weight, approximately 50 lb per square (108 sq ft).

SBESTOS FIRETARD JACKET—Made especially for fire-hazard areas, from saturated and unsaturated bestos felts. Firetard weatherproof jacket will not carry flame or support combustion. Weight, approximately lb per square (108 sq ft).

ATERPROOFING FABRIC—An asphalt-saturated woven fabric, used as a membrane for outdoor shing and finish.

O. 50 ASBESTOS WATERPROOFING FELT (PLAIN)—An asphalt-saturated asbestos felt for cketing lagging insulation on low temperature pipe. Weight, approximately 32 lb per square (108 sq ft).

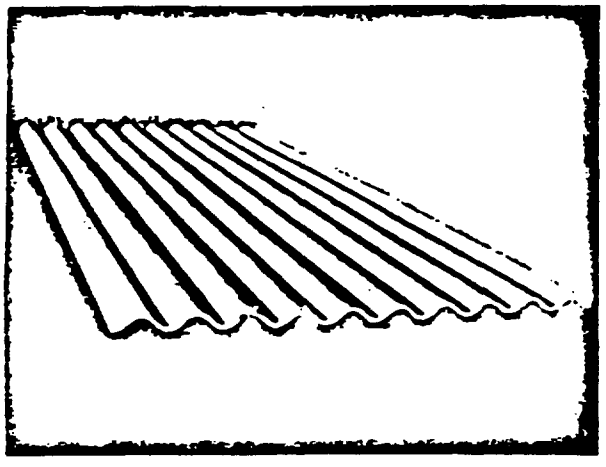
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15-LB PERFORATED ASBESTOS ROOFING FELT—Asphalt-saturated asbestos felt, perforated to allow better embedment in hot asphalt or Insulkote ST, for vaporproofing low temperature insulation or for weatherproofing insulation on tank roofs. Weight, approximately 15 lb per square (108 sq ft).

ROOFING ASPHALT—Standard 190F melting point asphalt for hot application of weatherproofing felts.

***INSULKOTE PRIMER S**—A solvent asphalt for priming insulation surfaces, to improve bond with hot asphalt or Insulkote ST.



Corrugated Transite is composed of asbestos fiber and cement. This durable material can be applied to any skeleton-frame structure.

***INSULKOTE PRIMER E**—An asphalt emulsion for priming insulation surfaces or other asphaltic coatings, to improve bond with Insulkote ET.

***TRANSITE ASBESTOS SHEETS**—Corrugated and flat asbestos-cement sheets for roofing, siding and casing furnace walls. More rigid and made in greater thicknesses than Asbestocite.

S-A ADHESIVE—A cold-application rubber-base cement for applying low temperature insulation. Coverage, approximately 1 gal per 75 sq ft.

***ROCK CORK ASPHALT**—Especially prepared asphalt for hot application of low temperature insulation.

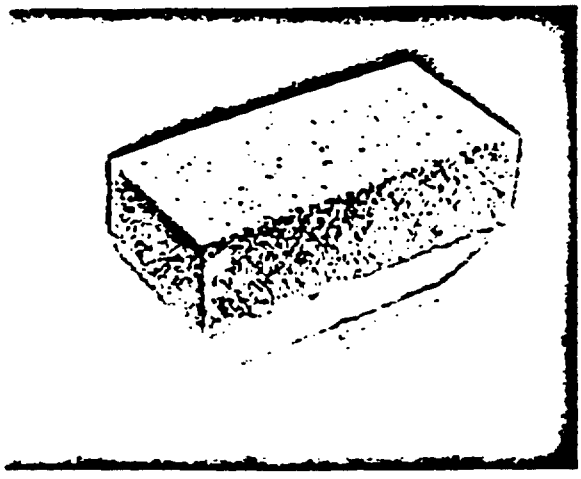
***ZEROSEAL**—A heavy bodied asbestos fiber and solvent asphalt, used for vaporproofing low temperature insulation.

***ZEROGLOSS**—An asphaltic paint for low temperature pipe and fitting insulation. Also used for coating steel surfaces before application of low temperature insulation.

***ZEROTAPE**—An adhesive fabric tape, used with Zeroseal as a vaporproofing membrane over Zerotex fitting insulation.

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Insulating Fire Brick are high in insulating value and light weight.

J-M INSULATING FIRE BRICK—J-M Insulating Fire Brick, for light weight, low heat capacity, insulated furnace walls, floors and arches, are produced from refractory clay and burned-out organic filler.

JM-26: High spalling resistance, light weight brick, suitable as direct refractory lining or back-up insulation for temperatures to 2600F.

JM-1620: Low conductivity insulating brick for service behind refractory where temperatures do not exceed 2000F, or for direct exposure to 1600F.

Four other types of J-M Insulating Fire Brick are available, for temperatures from 2000F to 3000F in standard fire brick and special shapes.

M HYDRAULIC-SETTING REFRACTORIES—The following dry hydraulic-setting refractories n be quickly and economically placed for such service as insulated door or header linings.

TANDARD FIRECRETE*: For temperatures to 2400F, Standard Firecrete handles as easily as ordinary ncrete and has practically no drying or firing shrinkage.

W. FIRECRETE*: Light Weight Firecrete, an insulating refractory for temperatures to 2400F, is about ur times as effective as fire brick in retarding heat flow, yet about half the weight and heat capacity.



ecrete (hydraulic setting refractory) can be easily applied by p-troweling.

NO. 20 FIRECRETE*: Similar to L. W. Firecrete, but lighter in weight. For temperatures to 2000F.

L. W. BLAZECRETE*: An insulating refractory for temperatures to 2000F, Light Weight Blazecrete adheres readily when applied by cement-gun or slap-troweling.

JOHNS-MANVILLE FURNACE SEALING MATERIALS

For packing and sealing spaces and joints in furnace walls, J-M No. 4200 Twisted Asbestos Rope and Asbestos Roll Fire-Felt are made from pure asbestos to withstand high temperatures.

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