

# RUBEROID INSULATION

PLAINTIFF'S  
EXHIBIT  
GF-882

## HIGH TEMPERATURE INSULATION

### HIGH TEMPERATURE INSULATION

The high temperatures existing on heating and process equipment in power houses, refineries, chemical plants, etc., have made it important to provide a durable material that will withstand these higher temperatures. "H. T." insulation can be used up to 1900° F. without disintegrating. It is recommended as an inner layer for use in combination with other more efficient, low density insulation to reduce the temperature to within the range of such materials.

Recommended Thickness of Blocks for Inner Layer

| Temperature  | Block            | Temperature    | Block            |
|--------------|------------------|----------------|------------------|
| 600°-700° F. | use 1½ in. thick | 900°-1000° F.  | use 2½ in. thick |
| 700°-900° F. | use 2 in. thick  | 1000°-1900° F. | use 3½ in. thick |

### CALSILITE INSULATION

Calsilite is a molded insulation that provides the physical characteristics required by engineers designing modern high pressure steam equipment. It is a calcium silicate compound using selected raw materials that, when combined and ingeniously controlled, form a product free from harmful ingredients. It is not only unique in its extremely light weight for such material, but it will stand soaking heat of 1250° F. indefinitely without changing its value to any appreciable degree. This permits its use on pipe lines and equipment in either single layer of required thickness, or two or more layers should be specified. The use of single layer insulation also speeds up its application. Calsilite is highly efficient in heat saving; it has a high modulus of rupture; it resists abrasion excellently. There is little breakage of Calsilite in shipment or when handled on the job. It has low moisture absorption when subject to high humidity atmospheres.

Calsilite is furnished in both pipe covering and block form. Pipe covering is made in sections 36 in. long, canvas covered and in such thicknesses that combinations of layers can provide whatever thickness may be required to cope with the conditions. Blocks are made in standard sizes of 6 in. x 36 in. in thickness up to 3 in. Packed in cartons and crates suitable for easy handling on the job.

Physical Properties

|                                            |                     |                           |           |
|--------------------------------------------|---------------------|---------------------------|-----------|
| Density.....                               | 13 lbs. per cu. ft. | Thermal Conductivity      |           |
| Compressibility—½" Ball—1 kgm; weight..... | 0.80 mm             | at 100° F. mean temp..... | 0.330 btu |
| Loss in weight at 1000° F.....             | 9%                  | 200° F. mean temp.....    | 0.392 btu |
| Linear Shrinkage at 1000° F.....           | 0.5%                | 300° F. mean temp.....    | 0.450 btu |
| Modulus of Rupture.....                    | 50 lbs. per sq. in. | 400° F. mean temp.....    | 0.510 btu |
| Moisture Absorption—90% rel. humidity..... | 0.5%                | 500° F. mean temp.....    | 0.570 btu |

### 85% MAGNESIA INSULATION

For use on temperatures to 500° F. Low density and high efficiency combined with structural strength make it popular for all industrial and power house work. Ideal for marine insulation. A variety of thicknesses are provided to give the maximum efficiency for each temperature. Flat and curved blocks are available for boiler surfaces, breechings, tanks, etc.

### IMPERIAL PIPE COVERING

This is a laminated asbestos paper insulation that has been indented to use 22 laminations of asbestos paper per inch thickness. Its efficiency makes it satisfactory for most medium pressure steam work in industrial plants. Its construction makes it ideal for vibrating conditions. It is recommended for temperatures to 500° F. Being an asbestos felt laminated material, it is used on vibrating pipes or where hard service is expected. Suitable for underground piping. Excellent as an industrial, oil refinery and synthetic rubber plant insulation.

### ASBESTOS SPONGE FELT

Sponge Felt Pipe Insulation is for temperatures up to 700° F. Composed of asbestos felt paper with a maximum amount of spongy content evenly distributed. There are 37 to 42 laminations to the inch. This produces a uniformly round and rigid insulation of extreme density. Over the outside is a heavy canvas jacket. Because of its rigidity and ability to withstand damage from abuse, particularly adapted for use on vibrating lines and on pipe lines where insulation must be removed at frequent intervals.

← PRODUCT TEMPERATURE INSULATION GUIDE

1900° HIGH TEMPERATURE

1800

1700

1600

1500

1400

1300

CALSILITE

1200

1100

1000

900

800

ASBESTOS SPONGE FELT

700

85% MAGNESIA and IMPERIAL

600

500

400

AIR-CELL

300

WOOL-FELT

200

ANTI-SWEAT and FROST-PROOF

100

0