

FILE NAME: Owens Illinois (OWILL)

DATE: 1960

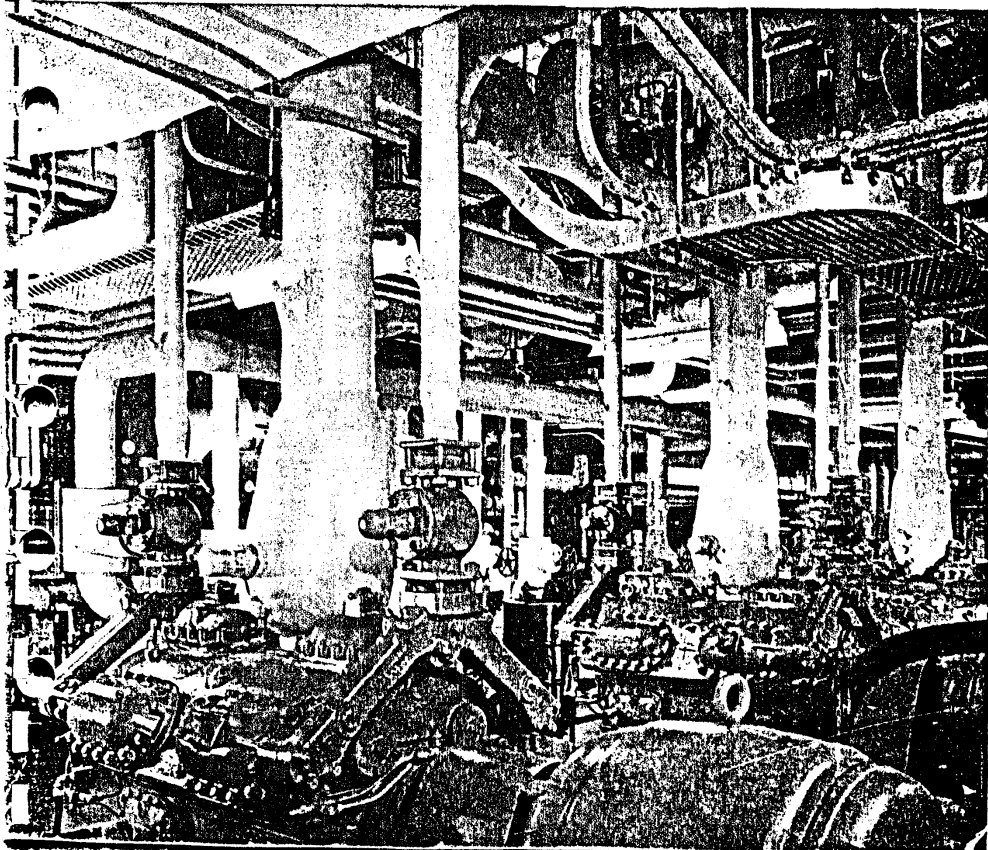
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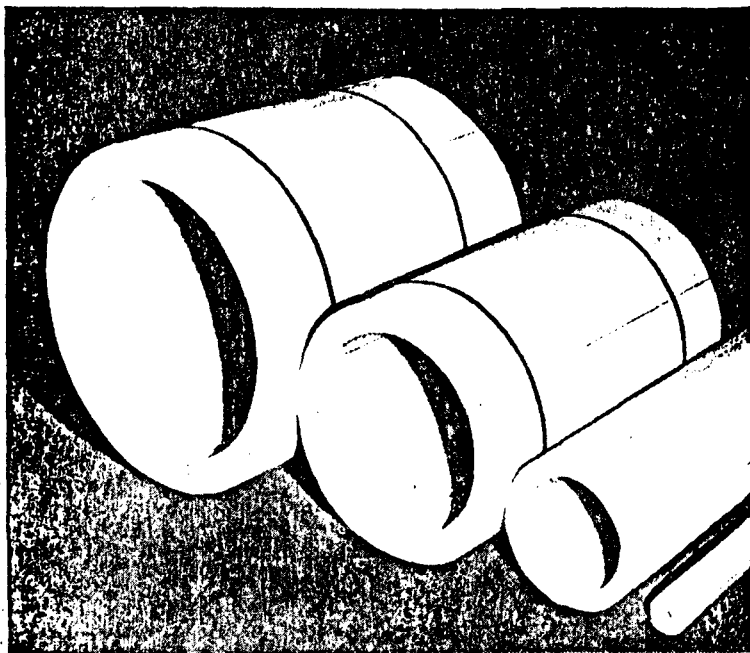
Industrial Insulations

*a complete line of industrial
and commercial insulations for
temperatures from minus 120 F to 1800 F*

October, 1960



KAYLO pipe insulation



Kaylo Pipe Insulation presents a superior final appearance when applied to a variety of irregularly-shaped high temperature vessels.

note:

**high temperature
insulation for indoor
or outdoor piping up
to 1200 F operating
temperature**

(for temperatures ranging from 1200 F to 1800 F, see Kaylo-20, page 26)

Kaylo* pipe insulation, a near white, rigid hydrous calcium silicate heat insulation, manufactured by Owens-Corning Fiberglas Corporation, effectively insulates indoor and outdoor piping to 1200 F. A chemically reacted material, Kaylo pipe insulation contains no added binder. For mechanical effects, a small amount of asbestos fiber is included at the time of manufacture.

This thoroughly tested and field-proven material contains the physical properties most desired for efficient, durable insulation work. It retains an appreciable percentage of its strength even after complete saturation in water, original efficiency returning after drying. The effectiveness, high strength and moisture resistance are unattained by most other insulating materials.

sizes

thickness—Kaylo Pipe Insulation is available in thicknesses from 1" to 3" depending upon pipe size. Kaylo Tube Insulation is available in thicknesses of 1" and 1½".

pipe sizes—Kaylo Pipe Insulation is available to fit pipe from ½" to 39" in diameter. Kaylo Tube Insulation will fit copper tubing from ½" to 3½" in diameter.

forms—Kaylo Pipe Insulation is available in sectional or multisegmental form depending upon pipe size. All insulation is furnished in 3 ft. sections.

jackets

canvas—Kaylo Sectional Pipe Insulation includes standard canvas jackets, at no additional charge, on thicknesses up to and including 2½". Standard canvas is available for segmental forms at a slight additional cost. Bands are available for use with this product at slight additional charge and will be furnished on request.

6 oz. and 8 oz. canvas jackets are available for all types, sizes and thicknesses of Kaylo Pipe and Tube Insulation at an additional charge. These jackets are factory applied on Sectional Pipe and Tube Insulation. On Multisegmental forms, they are furnished but not adhered.

embossed aluminum—Kaylo is also available with a soft rippled embossed aluminum jacket .016" thick. This jacket provides greater resistance to mechanical damage and presents a neat finished appearance to pipe lines. The longitudinal seam has a self-locking joint. End joint bands are furnished with integral mastic for sealing end joints.

limitations

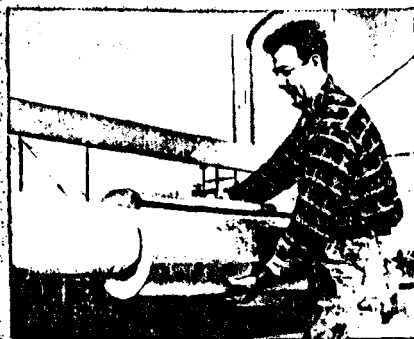
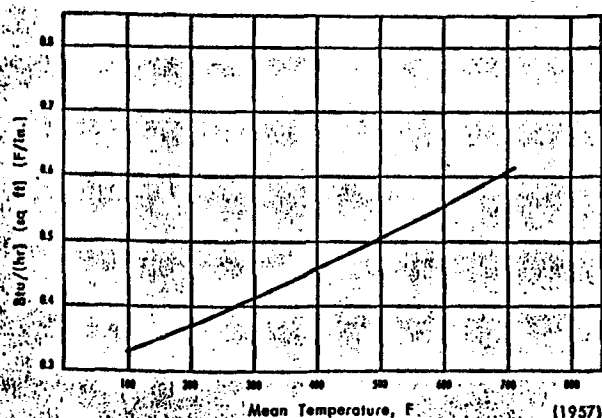
Kaylo Pipe Insulation is designed for temperatures up to 1200 F and is not recommended when operating temperatures of piping exceed this limit.

*T. M. Owens-Corning Fiberglas Corp.

physical properties

density	approximately 11 lb. per cu. ft.
flexural strength	(ASTM C-203) over 50 lb. per sq. in.
compressive strength (at 5% deformation)	
before heating	(ASTM C-165) 150 lb. per sq. in.
after heating for 24 hours	
at 750 F	144 lb. per sq. in.
at 1000 F	123 lb. per sq. in.
at 1200 F	117 lb. per sq. in.
after boiling for 24 hours	
(while wet)	74 lb. per sq. in.
resistance to abrasion	
(conventional tumbling test-loss in weight after 10 min.)	
before heating	9%
after heating for 24 hours	
at 750 F	5%
at 1000 F	4%
at 1200 F	3%
alkalinity: ph 10	
dimensional stability	
linear shrinkage after heating for 24 hours in muffle	
at 750 F	0.8%
at 1000 F	0.9%
at 1200 F	1.4%

thermal conductivity



Kaylo-Klad

A new aluminum clad Kaylo Pipe Insulation applies quickly to piping. A self locking longitudinal seam and end joint strips make application of insulation and weather protection a "one-step" operation. The neat finished appearance "dresses up" the line and provides a virtually maintenance-free weather protection.

specifications

for insulation of piping with Kaylo

applicable specifications

HH-I-523a Insulation Block, Pipe Covering and Cement, Thermal, Calcium Silicate (For Temperatures up to 1200 F) class II (pipe covering).

MIL-I-2781C Insulation Pipe Covering, Thermal, Grade I Class B, Grade II Class D, Grade III Class E.

1. Insulating materials

All heated pipes shall be insulated with Kaylo Pipe Insulation as manufactured by Owens-Corning Fiberglas Corporation, to the thickness noted on drawings or as shown in the table.

2. Application

All Pipe Insulation shall be applied over clean, dry surfaces, butting adjoining sections firmly together. Insulation on pipes under 12" diameter shall have factory-applied canvas pasted neatly in place.

Insulation on pipes over 12" diameter and all outdoor piping shall be wired in place with 16 gauge soft annealed wire on no greater than 9" centers. Where double layer insulation is applied, the first layer shall be wired in place without jacket; the second layer shall be applied with all joints staggered.

All flanges, valves and fittings shall be insulated with fabricated mitered segments of pipe insulation equal in thickness to the insulation on the adjoining pipe. Fittings on pipe size of 3" and smaller may be insulated with O-C 110 Insulating Cement of equal thickness.

3. Surface finish

Indoor piping under 12" diameter not subject to abrasion or mechanical abuse requires no finish in addition to the factory-furnished canvas. Piping over 12" diameter shall be finished with 6-ounce canvas pasted in place.

Piping located outdoors shall be finished with 45-lb. roofing felt jacket with all joints lapped not less than 2". Jackets shall be wired with 16 ga. copper wire on not greater than 9" centers or banded on 12" centers with 1/2" galvanized bands. Other suitable weatherproof jackets such as metal, asphalt or plastic coating may be applied according to the jacket manufacturers' specifications.

Insulation on flanges, valves and fittings shall be covered with a 1/4" coat of O-C 110 Insulation Cement. Insulation located indoors shall be further finished with 6 oz. canvas neatly pasted in place.

All insulation on flanges, valves and fittings located outdoors shall be covered with asphalt weatherproof mastic reinforced with an open mesh glass fabric. Mastic shall be applied in sufficient thickness to give a 1/4" dry coat and shall be troweled neatly over the fitting with the jacket on the adjacent pipe insulation lapped at least 2" over the mastic.

The foregoing is necessarily general in nature. Application procedure and material approval is at the discretion and responsibility of the design engineer to meet specific job requirements.

design data for Kaylo Insulations

The following data are presented to aid in the design of Kaylo Pipe Insulation modified to meet specific needs. Recommendations are generalized and should be modified to meet local conditions and job requirements.

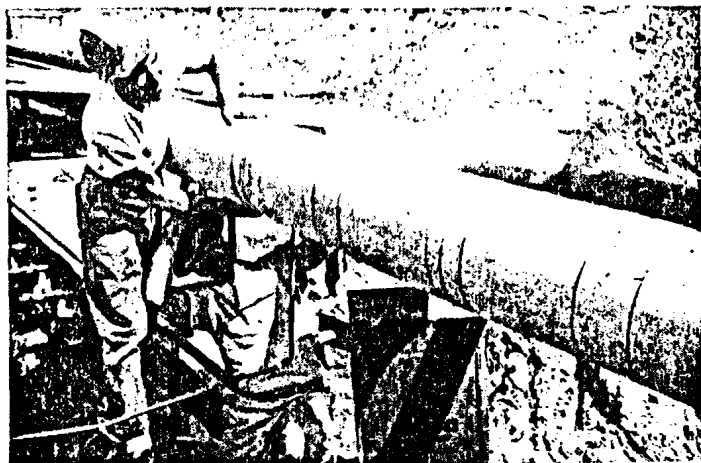
This table presents reference data for information on the actual thicknesses according to the simplified Dimensional Standard system.

Kaylo pipe insulation applies easily and quickly with standard application methods. Ordinary tools of the trade are sufficient for all cutting, sawing or scoring. It is non-irritating to the skin and non-toxic.

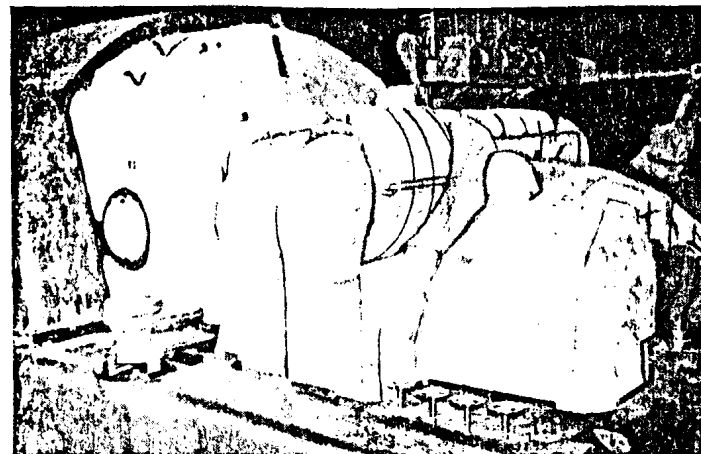
Economical thicknesses of insulation vary to a substantial degree in different industries principally because of:

- 1: Cost of fuel operation time
- 2: Fixed charges or anticipated life of installation

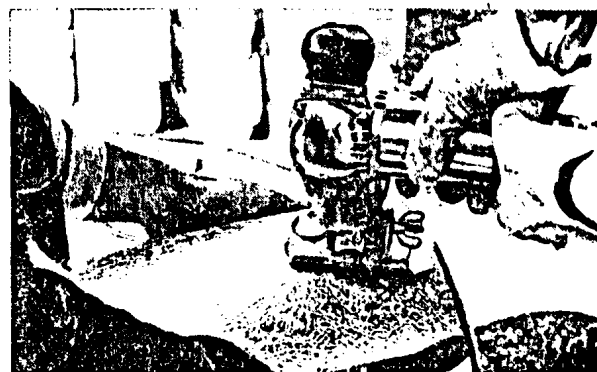
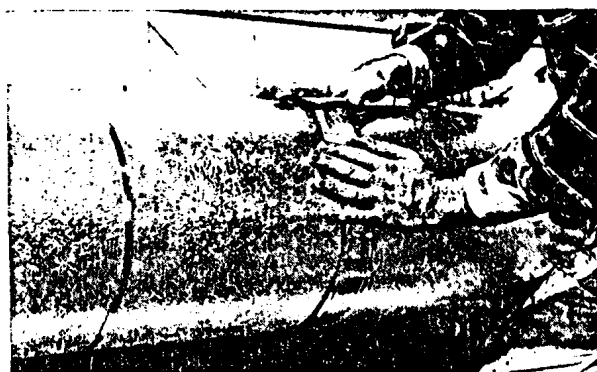
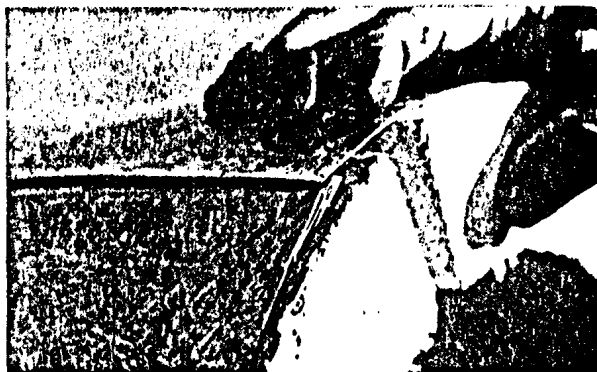
applications—Kaylo and Kaylo-Klad



Off-site yard steam insulated with Kaylo Pipe Insulation for efficiency controlled temperatures at distant points.



Kaylo 20 Insulation being used on the head of a high pressure turbo generator.



Kaylo-Klad aluminum jacket "locks out" the weather. The longitudinal seam joint and end joint band, with integral mastic, provide positive weather protection.

Where to buy

Fiberglas Industrial Insulations

For additional information, contact your nearest Fiberglas Branch Office listed below. Authorized Distributors maintain stocks in principal cities. Consult the yellow pages for their locations.

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