

FILE NAME: Quigley (QUIG)

DATE: 1942

DOC#: QUIG042

DOCUMENT DESCRIPTION: Advertising Literature

For Inquiry

QUIGLEY COMPANY INC.

Manufacturers of Industrial Specialties
527 Fifth Avenue—New York 17, N. Y.

REFRACTORY DIVISION

BULLETIN No. 327-F

INSULAG

Patent Pending—Reg. U. S. Pat. Off.

REFRACTORY PLASTIC INSULATING LAGGING

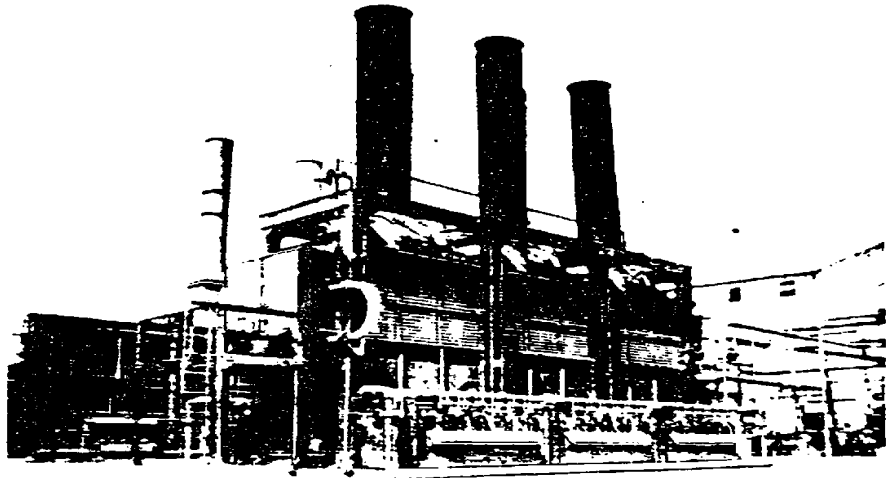


Fig. 2—This Oil Refinery Completely Lined With INSULAG. First in Lower Section With INSULBLOX, INSULAG AND INSULCRETE in Upper Section. This Not Only Saves Fuel Cost

INSULAG is a superior refractory lagging with unsurpassed insulating properties for use on high or low temperature equipment. **INSULAG** may be applied on hot or cold metal surfaces, and as a finishing coat for **INSULBLOX** or other insulation.

INSULAG possesses at recommended temperatures exceptionally high refractory and insulating properties. **INSULAG** is used at operating temperatures at which other laggings fail.

Its unusual low heat storage and low thermal conductivity make **INSULAG** a most effective insulator for the control of temperatures. **INSULAG** permits reduction in thickness of heavy refractory walls and, in turn, decreases the heat capacity of the total structure. Fuel savings, constant temperatures and increased production result from its use.

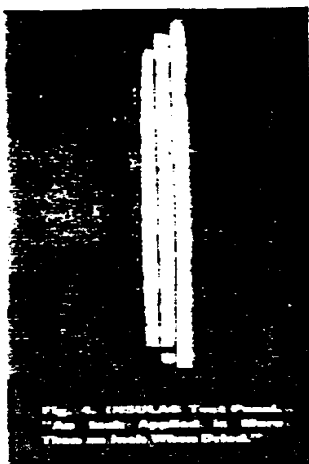
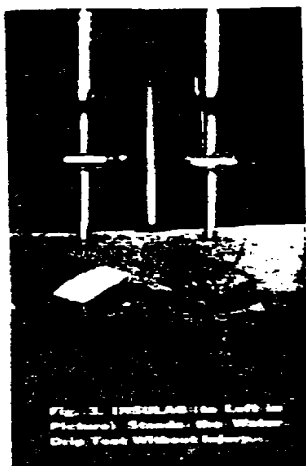
INSULAG increases in thickness after application and retains this increased volume throughout its entire range of service temperatures. **INSULAG**, after it has set, does not dissolve or collapse from contact with water, oil or steam, which properties make it an outstanding product.



Fig. 1—Tower and Oil Heating Tank Insulated With **INSULAG**. Petroleum Industry Has Found **INSULAG** Unsurpassed for Insulation.

**CAREY MACHINERY AND
SUPPLY CO.**

119 East Lombard Street
Baltimore, Maryland
Phone: Lexington 4800



PROPERTIES OF INSULAG

LOW THERMAL CONDUCTIVITY — INSULAG retains practically constant insulating values throughout its service range, so that under varying conditions and temperature changes there is no appreciable loss of insulating efficiency. One inch of INSULAG has an insulating value equal to about nine inches of fire brick and has about 1/40 the heat storage capacity of fire brick walls of equal heat flow. Therefore, relatively thin applications of INSULAG may be substituted for heavy masses of refractory; heat losses are reduced and furnace production is increased.

HIGH MECHANICAL STRENGTH — INSULAG is different. It develops high mechanical strength upon drying and successfully withstands shock, moderate abrasion and corrosion. The impact of a hammer will cause a dent in INSULAG, but when the hammer is pulled away the blow will not be so felt. It makes a very sturdy film on the equipment to which it is applied. This is most advantageous on drums, tanks, pipes, etc., where the equipment is subject to rough usage.

HIGH TEMPERATURE LIMITS — INSULAG will withstand a wide range of applications for high temperature direct exposure and is recommended for interface temperatures up to 2200°F.

EXPANSION — INSULAG expands after application; physical shrinkage eliminated.

LIGHT WEIGHT — On the average, three pounds of INSULAG covers 1 square foot to a thickness of 1 inch. Varying conditions, methods of application, hard troweling, kinds of surfaces, variations in mixing, water content, and temperature of surfaces at time of application may require more material.

QUICK SETTING — INSULAG cold-sets firmly in 24 hours to 48 hours and in much less time when subjected to heat. The quick drying and setting characteristics of INSULAG permit troweling to a smooth finish suitable for painting.

ADAPTABILITY — INSULAG possesses properties necessary for "roughing" coat and "finishing" coat, or two coats by one application. The user of INSULAG does not find it necessary to carry in stock two or three different materials for the same job.

WATER RESISTANT — INSULAG, after setting, does not dissolve or collapse from contact with water, oil or steam. This is a decided advantage in plant maintenance. INSULAG is a superior product for insulating equipment exposed to the weather.

NON-INJURIOUS — INSULAG contains no mineral wool, or fine slag particles which are irritants to the hands or other parts of the body.

A feature of INSULAG which particularly appeals to many users is the beautiful, smooth, white surface which is obtained.

It is desired in INSULAG to avoid finished surface being coated with Quigley's TRIPLE-A Protective Coatings in white, black, blue, and red.

Various combinations of INSULAG with other INSULINE Products can be made for specific applications.

PROPERTIES OF INSULAG vs. FIRE BRICK

Heat Conductivity B.t.u. Sq. Ft. In. Thick F. per hour	INSULAG	FIRE BRICK
MEAN TEMPERATURE		
500 F.	1.56	8.15
1000 F.	1.71	9.99
1500 F.	1.84	15.15
Approximate weight per cu. ft. applied	1.83	21.8
Heat storage per lb. per °F.	1.00	1.00
Heat Storage for same insulating effect		

QUICK SUMMARY

1" equals 9" of fire brick in insulating value.
 1/40 heat storage capacity of fire brick for same heat flow.
 High mechanical strength.
 Operating temperature 2200°F. interface.
 Light weight—yet rugged and strong.
 Sets quickly.
 Adaptable—suitable for practically every lagging need.
 Water resistant—steam, oil or water leaks do not destroy.
 Expands—an inch applied is more than an inch when dried.

USES OF INSULAG

PETROLEUM INDUSTRY—Refineries and Natural Gasoline plants use INSULAG in towers, tanks, treaters, stills, boilers, breechings, pipe lines and for fire proofing supporting steelwork, panel construction of still furnaces, baffle plates and door linings.

METALLURGICAL FURNACES—INSULAG is used for insulating heat treating, forging, annealing, recuperators, reverberatory, and open hearth furnaces; for hot blast stoves, bustle pipes, hot blast mains, flues, pipes and other heated equipment where insulation is required.

CERAMIC PLANTS—INSULAG is used on kilns, glass lehrs, glass tanks, hot air pipes, underground flues, recuperators and checker chambers.

Plants manufacturing pottery, glass, brick, etc., find it most adaptable.

POWER PLANTS—INSULAG meets the engineer's demand for a suitable material for covering turbines, feed water heaters, hot liquid storage tanks, drums, smoke flues, stacks, pipes and flanges. It is also recommended as insulation in back of refractory tile of water wall boilers and inside fire brick walls in boiler furnace construction.

GENERAL USES — INSULAG has such a wide range of uses that it is indispensable as a plastic lagging in plants, smelting furnaces. It is "the lagging material of a thousand uses."

FIRE-PROOFING—Bins, walls, roof structures, furnace rooms, columns, etc., may be protected against fire by applying INSULAG as a veneer coating. The fire retardant properties of INSULAG render it ideal for this purpose.

WEATHER-PROOFING—While INSULAG is not injured by contact with the weather, yet to retain maximum insulating efficiency at all times it is often desirable to waterproof INSULAG with TRIPLE-A Products.

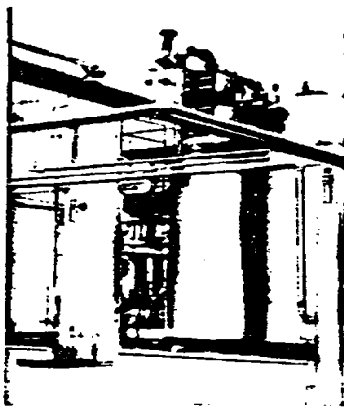


Fig. 5—Reclaiming Tower and Tanks Insulated With INSULAG.

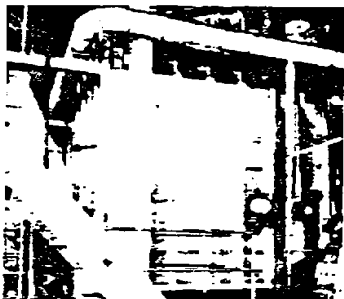


Fig. 7—Water, Dust, Oil and Steam Large Boilers Insulated With INSULAG.

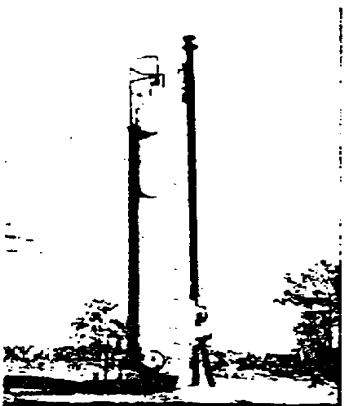


Fig. 9—Combination Oil Separator and Heater Insulated With INSULAG.

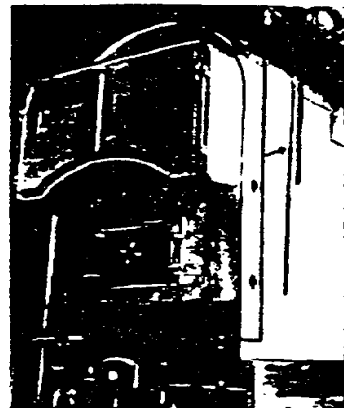


Fig. 6 — 45-h.p. High Pressure Boiler Insulated With INSULAG.

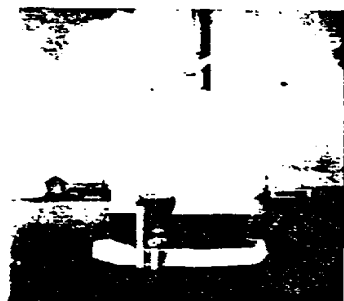


Fig. 8—Feed Oil Heater Insulated With INSULAG.

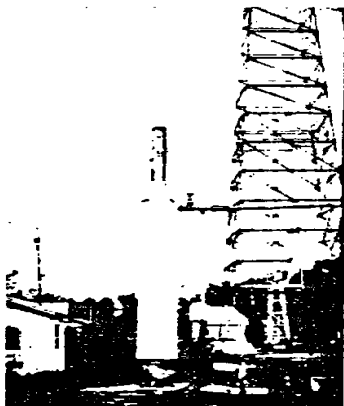


Fig. 10—Field Oil Treater Insulated With INSULAG.

INSULAG

Cuts Heat Losses • Reduces Fuel Costs • Improves Heat Control

Widely Used in Oil Industry—Oil producers find nothing like INSULAG to insulate field equipment. Permits better heat control. Requires less fuel to maintain constant heat. They simply fasten metal lath on equipment and apply INSULAG, which sets quickly—adheres to hot or cold surfaces—expands after application and retains volume when set—develops high mechanical strength—withstands shock, moderate abrasion and vibration—durable—defies weather—does not lose insulating value after repeated heating and cooling. Makes a white, hard-finish surface, unaffected by moisture.

Good Results on Many Applications

—Famous soap manufacturers use INSULAG for insulating steam headers, breechings and hot water tanks with good results.

On Boiler Drums — INSULAG, used on the boiler drums because it does not crack in service, can be walked on without destruction, and does not collapse due to steam leaks or water dripping on same.

For Oil Burners—Internationally known oil corporation's technical engineer recommends INSULBRIN and INSULAG to fuel oil burner installers in his district for all oil burner work. "Quigley INSULBRIN, combined with INSULAG, have all the desirable requirements for domestic combustion chamber lining and insulation."

INSULAG Applied With Boilers, Stills and Furnaces on the Line—Chief engineers and superintendents who cannot believe brick walls can be insulated successfully with boilers or stills on the line, are invited to look at installations with INSULAG applied under these conditions. INSULAG can be used in Quigley Panel Type Construction which has worked out successfully in many oil refinery stills.

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Fig. 11—Smoke Box and Exterior of Oil Fired Marine Type Boilers Insulated With INSULAG.

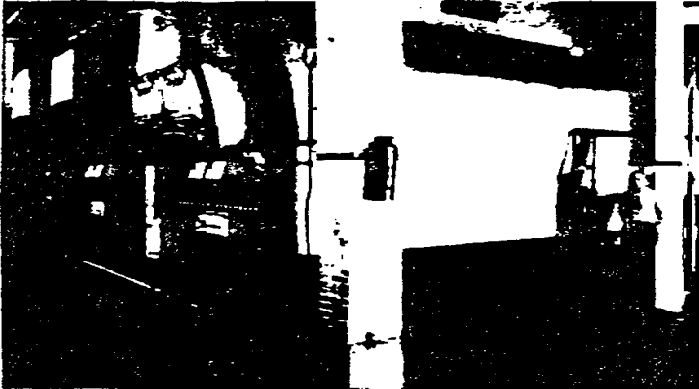


Fig. 12—Boilers Insulated With INSULAG.



Fig. 13—Water Tank and Boiler Domestic Fuel Oil Burner Insulated With INSULAG.

On Regenerator Chamber Ovens —

Eastern Public Service Corporation coke plant uses INSULAG in walls of ovens. Former practice in repairing fronts of regenerator chambers was to use two 4½ in. walls of fire-brick with a 7 in. clear space in which they used insulating powder in the bottom and middle sections, and insulating brick at top. The outside wall of these regenerator chambers is built of a thickness of 4½ in. of fire-brick. The inside temperature of chamber is 2300° F. In using INSULAG they laid up both the inside and outside fire brick wall, then filled the center with 7 in. of INSULAG. Well pleased with adoption of INSULAG due to increased insulating value, plus ease of application.

On Foundry Furnace Wall —

Large foundry applied INSULAG 2½ in. thick on 13½ in. silica brick wall while furnace was under heat. On the very hot surfaces they brush coated the wall of equipment to be insulated with a diluted batter of INSULAG of heavy paint consistency to obtain good adhesion and then built up 2½ in. thickness in three layers applied at intervals. Resulted in a smooth coat which did not shrink or crack. Used nails in wall to help anchor INSULAG.

In Coke Oven Plants—

INSULAG shields used for coke oven patching at plant of a large eastern utility. One used on pusher side of ovens and another on coke side. These have been in use several months doing an excellent job in closing the oven and effectively protecting men from the heat. Shields of this character should be used in every by-product coke oven plant for:

1. Protection of the silica brick from the chilling action of the air which might result in spalling.
2. Protection of the men from the blistering effects of the radiant heat; thus permitting them to do a more efficient job of patching.

Supersedes Water Cooling System—

Manufacturer of locomotive parts well pleased with results of using INSULAG to insulate small industrial furnaces. These furnaces were formerly water cooled but this was abandoned in favor of INSULAG which is more satisfactory in every way and eliminates water freezing in winter.

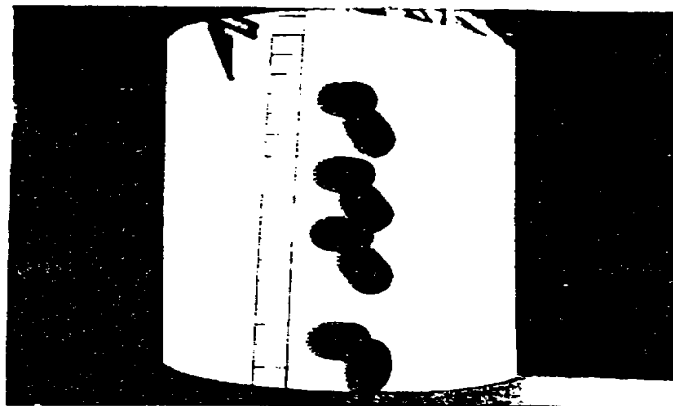


Fig. 14—Dorr Thickener (24 ft. diam. x 18½ ft. high) insulated with INSULAG.

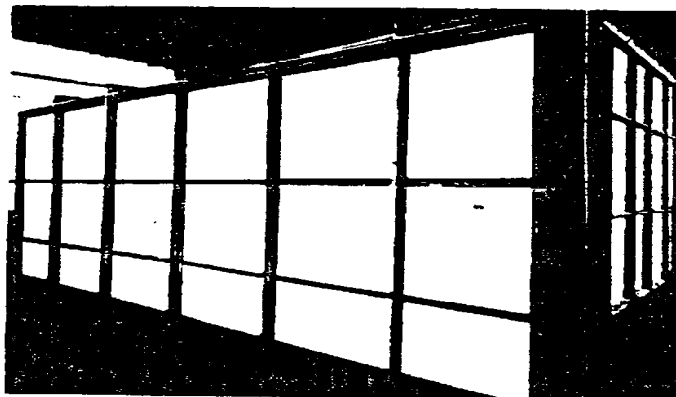


Fig. 15—Stress Relieving Furnace insulated with INSULAG.

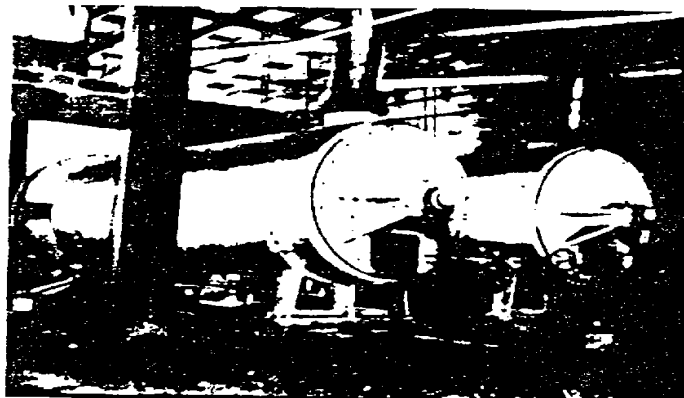
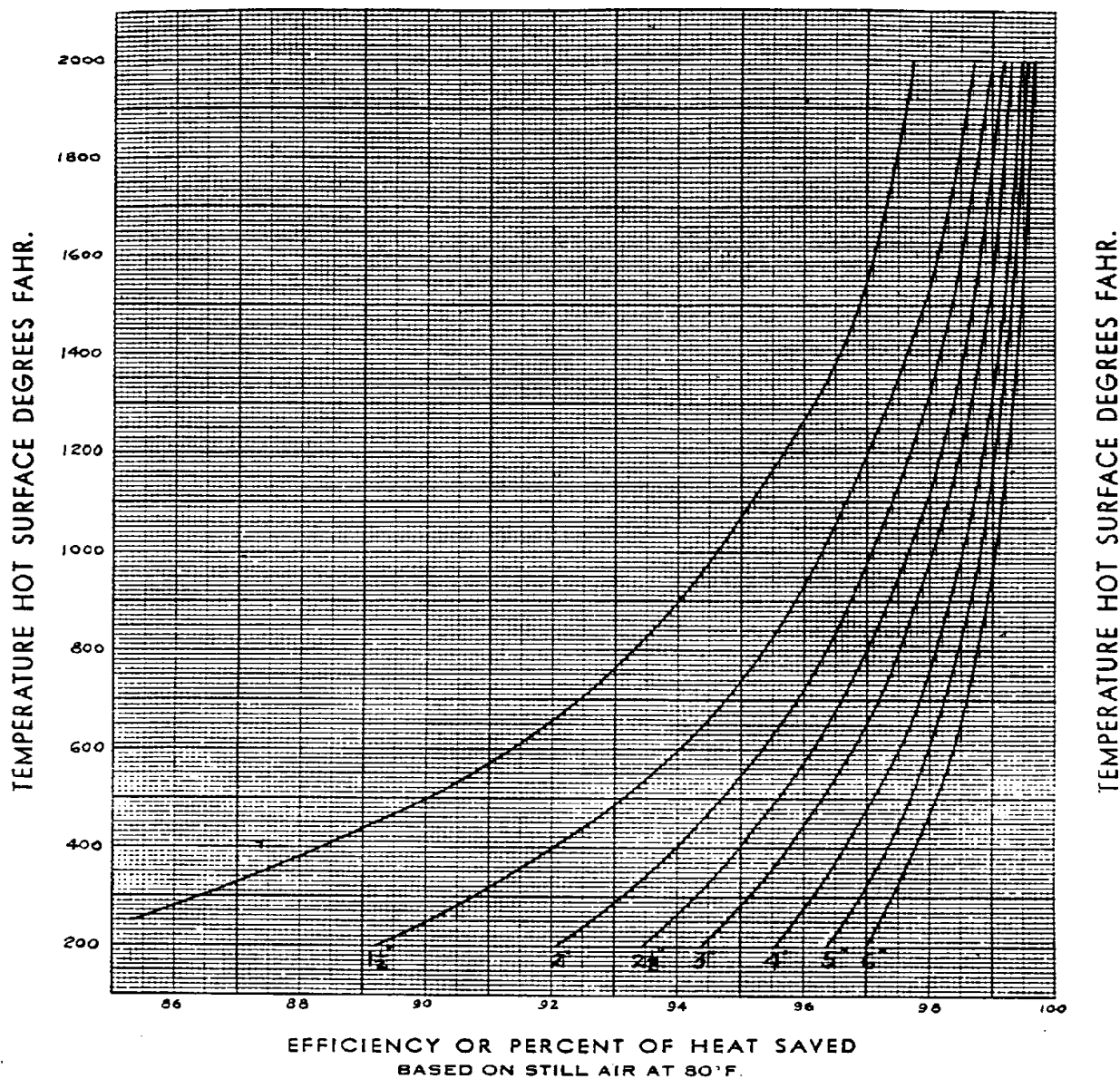


Fig. 16—Steam Driers Coated With INSULAG. No Wrapping or Painting Necessary.

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The efficiency of INSULAG is obtained by subtracting the heat loss through the INSULAG from the heat loss of the surface not insulated and dividing the difference by the heat loss of the surface not insulated.

Chart above indicates the efficiency or percent of heat saved by the application of various thicknesses of INSULAG.

Example: For same conditions used for chart page "6", from 500°F. following horizontal line until you intersect 2 in. curve line and reading directly downward you have 94.7%. Therefore the application of 2 in. INSULAG in a hot face of 500°F. saves 94.7% of the radiation losses.

INSULBRIX

REG. U. S. PAT. OFF.

INSULBRIX are light weight cellular low heat storage insulating fire brick for direct or indirect exposure to temperatures in boilers, stills, metallurgical furnaces, ovens, and kilns. Made for service temperatures up to 3000°F.

INSULBRIX are made in several brands from one-tenth to one-seventeenth the heat storage capacity of heavy refractories for same heat flows. 1" has an insulating value of 2 1/4" to 5" of fire brick, permits heated equipment to reach operating conditions in less time and meet fluctuations more rapidly.

Result in increased output, conservation of fuel, decreased labor costs, improved furnace control and greater comfort to the workmen.

INSULCRETE

REG. U. S. PAT. OFF.

INSULCRETE is a light weight cellular insulating refractory concrete for furnace linings, floors, door linings, heat shields, shapes, covers, and kindred uses; recommended for temperatures up to 2500°F. No cutting, fitting or ramming—just pour into place.

1" of INSULCRETE equals about 4" of fire brick in insulating value and has about one-seventh the heat storage capacity of fire brick walls of equal heat flow.

INSULBLOX

REG. U. S. PAT. OFF.

INSULBLOX are light weight, low heat storage refractory block insulation for reducing heat storage and radiation losses. Their use results in increased furnace production at lower costs.

INSULBLOX are recommended for insulating fire brick walls, roofs and arches in open hearth, forging, heat treating, melting, and other types of industrial furnaces.

They are ideal for insulating boiler settings, re-generator chambers, hot blast stoves, oil stills, fractionating towers, high temperature ducts, furnace shields and flues; also on vertical and horizontal boiler shells.

INSULINE

REG. U. S. PAT. OFF.

INSULINE GROUND—used as an insulating fill of low heat storage capacity in back of thin furnace walls at service temperatures up to 2600°F. 1" of INSULINE GROUND has insulating properties equal to about 6" of fire brick.

INSULINE SIZED AGGREGATE—used as an insulating fill or with Portland cement or other suitable binders to make an insulating concrete.

OTHER QUIGLEY PRODUCTS

"A COMPLETE REFRACTORIES SERVICE"

HYTEMPITE—air-setting, high temperature plastic cement, for laying fire brick with thin, strong, air-and-water-tight joints. For monolithic "GAS TITE" baffle construction. For quick, economical, long-lasting furnace repairs.

HYTEMPITE has many uses in the furnace room. Keep a drum handy. Recognized as "The World's Standard High Temperature Cement."

QUIGLEY REFRACTORY GUN for repairs and construction work on furnace linings, baffles, etc. Shoots seasoned plastic mixtures for hot or cold patching, etc. Portable in action, operated by compressed air.

QUIGLEY SPECIFICATION FIRE BRICK—made in many different brands and types, varying in thermal and physical characteristics to meet the refractory requirements of practically every type of furnace. All standard shapes carried in stock and immediate facilities for making special shapes.

ACID PROOF CEMENTS—plastic, ready-mixed acid proof and heat resisting cements for bonding and repairing acid resisting masonry structures.

HEARTHCRETE—A special patented chrome-base castable refractory of outstanding merit for building monolithic hearths or bottoms in forging and other steel heating furnaces; for monolithic sidewalls in copper refining furnaces; for making burner blocks subject to severe conditions and for many other purposes.

TRIPLE-A PROTECTIVE COATINGS afford lasting protection from corrosion due to moisture, acids, alkalis, heat, fumes of ammonia, chlorine, sulphur dioxide and other destructive agents. They dry by evaporation (not oxidation) and therefore do not become porous or brittle. Used for weatherproofing INSULATED structures.

QUICHROME—neutral-base refractory with very high fusion point for lining and repairing steel furnaces, soaking pits, smelting furnaces, etc. Also used for bonding fire brick, surfacing and repairing in high-heat-duty furnaces, and where destructive slagging or chemical action are encountered.

CASEREFRAC—refractory concrete—can be cast or molded into any desired form—sets quickly with great structural strength. For making special shapes, burner blocks, furnace door linings, etc. Temperature limit 2400°F.

QUICHROMASTIC—A neutral chrome-base refractory that may be used as a wash or surface coating for high heat and acid furnace walls. A thermoplastic on wall surfaces. Resists high temperatures, softening point, approx. 3300°F. Resists slagging action—prevents penetration and minimizes the cohesion. Resists fluxing and reduces injury to brickwork in removing dross.

FLUE-MORTAR—a dry, air-setting, refractory bonding mortar. It is a superior material for use wherever a dry cement is desired for bonding fire brick; for plaster coatings, for pointing up cracks and reclaiming eroded furnace walls, and other similar applications.

MONO-LINE—first quality plastic fire brick in easy-working, ready-to-use form. Highly refractory, practically neutral as to expansion and contraction, and lasts longer in actual service. For monolithic (jointless) furnace linings, and for the more substantial furnace repair jobs.

Bulletins on Above Products Sent on Request

This bulletin becomes effective as of May 15, 1942 and cancels in its entirety all previously issued bulletins or data referring to this product.

For further information write **QUIGLEY COMPANY, INC.** 527 Fifth Avenue, NEW YORK 17, N. Y.

Makers of **HYTEMPITE** "The World's Standard High Temperature Cement"

In Canada, Quigley Company of Canada, Ltd., Toronto, P. O.

Distributors with Stocks and Service in Important Industrial Centers Throughout the United States, Canada, and in 25 Other Countries.

QUIGLEY COMPANY INC.

Manufacturers of Industrial Specialties
527 Fifth Avenue—New York 17, N. Y.

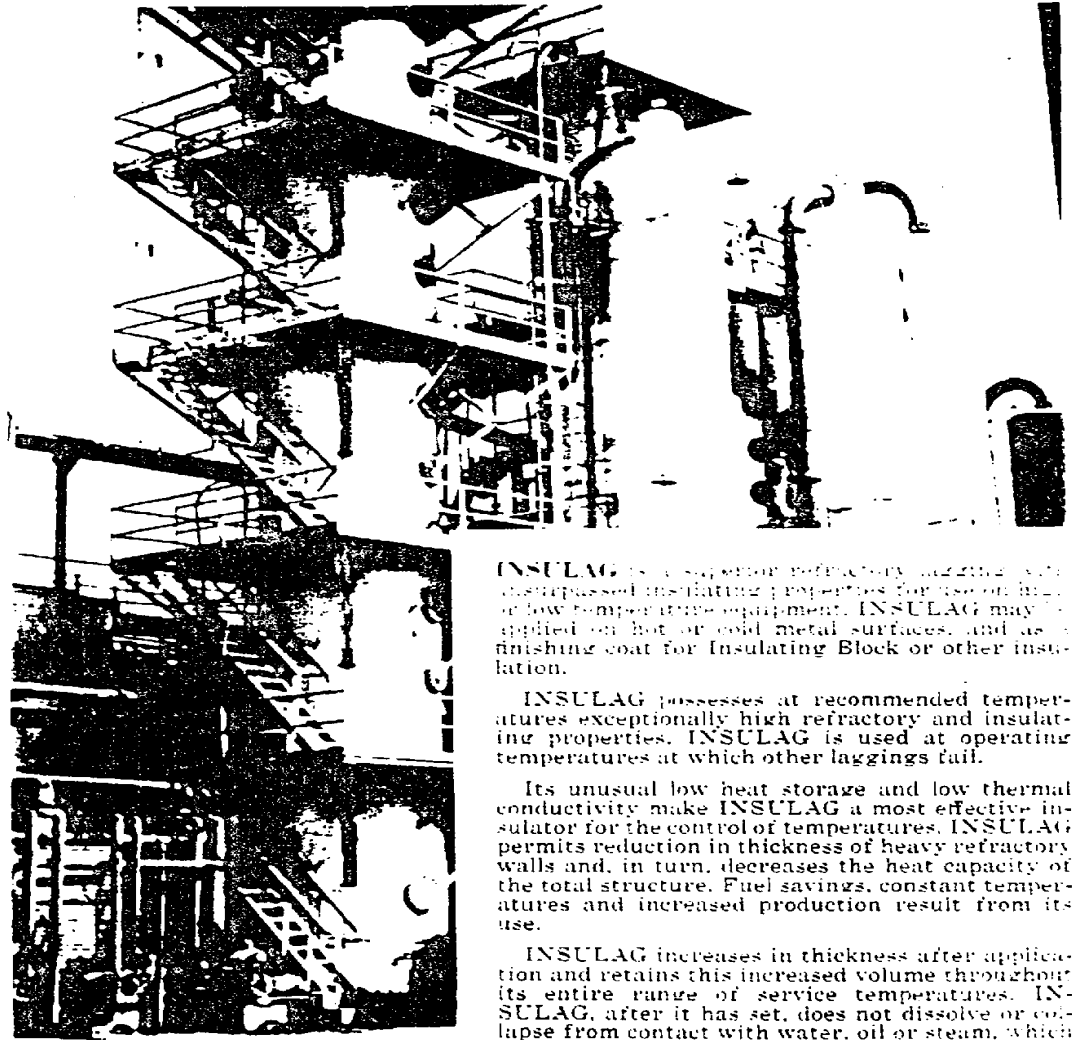
Laboratory Division

BULLETIN No. 327-H

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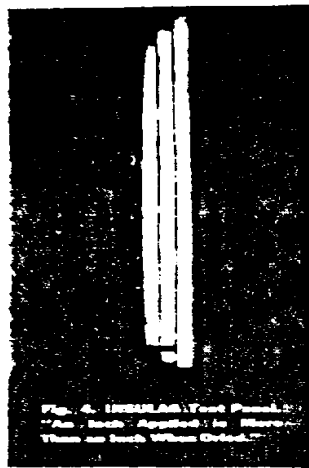
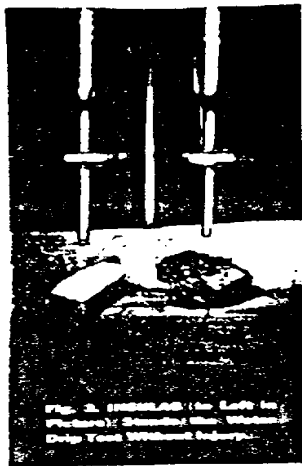
Oil Refinery Towers

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Heat Storage for same insulating effect	1.40	1.

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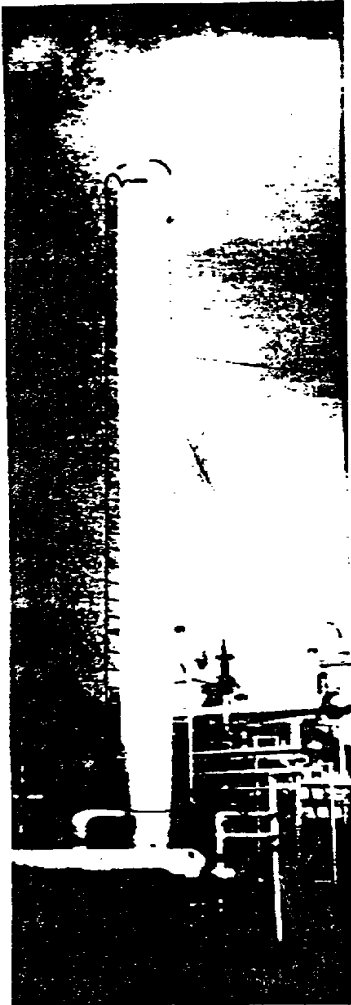


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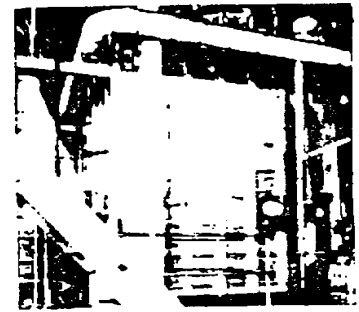


Fig. 2—Water Oil Heating Drum of Large Boiler Insulated With INSULAG.

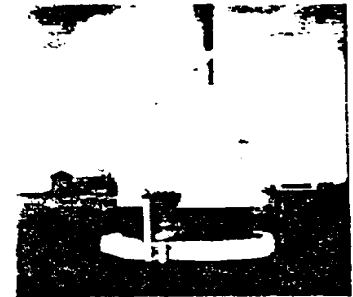


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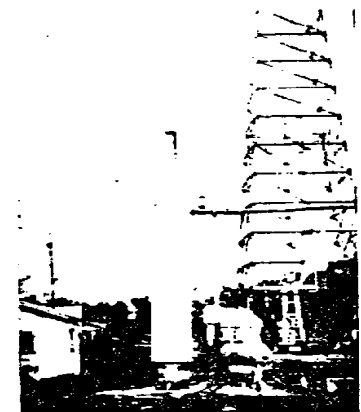


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In Coke Oven Plants—INSULAG shields used for coke oven patching at plant of a large eastern utility. One used on pusher side of ovens and another on coke side. These have been in use several months doing an excellent job in closing the oven and effectively protecting men from the heat. Shields of this character should be used in every by-product coke oven plant for:

1. Protection of the silica brick from the chilling action of the air which might result in spalling.
2. Protection of the men from the blistering effects of the radiant heat; thus permitting them to do a more efficient job of patching.

Supersedes Water Cooling System—

Manufacturer of locomotive parts well pleased with results of using INSULAG to insulate small industrial furnaces. These furnaces were formerly water cooled but this was abandoned in favor of INSULAG which is more satisfactory in every way and eliminates water freezing in winter.

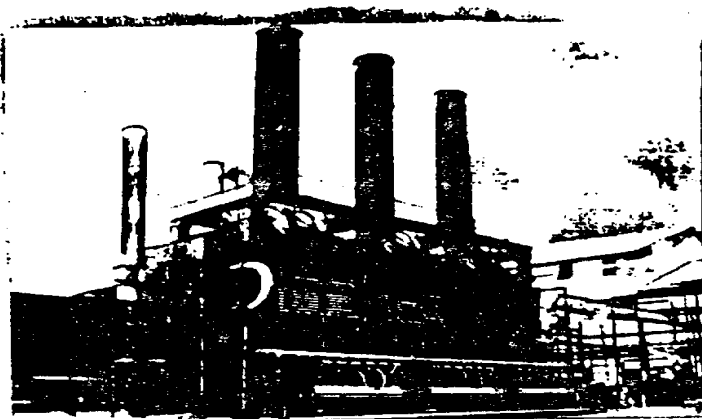


Fig. 8—Tide Ore Bldg. Constructed of INSULAG Panels in Upper Section, With INSULBRICK, INSULAG and INSULCROTE in Lower Section, Has Not Had a Hot Spot.

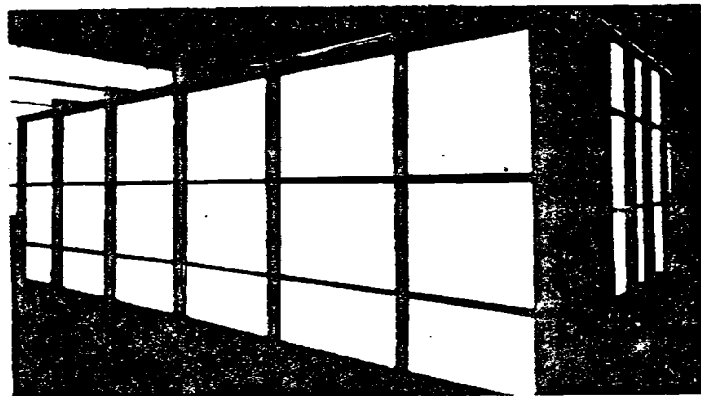
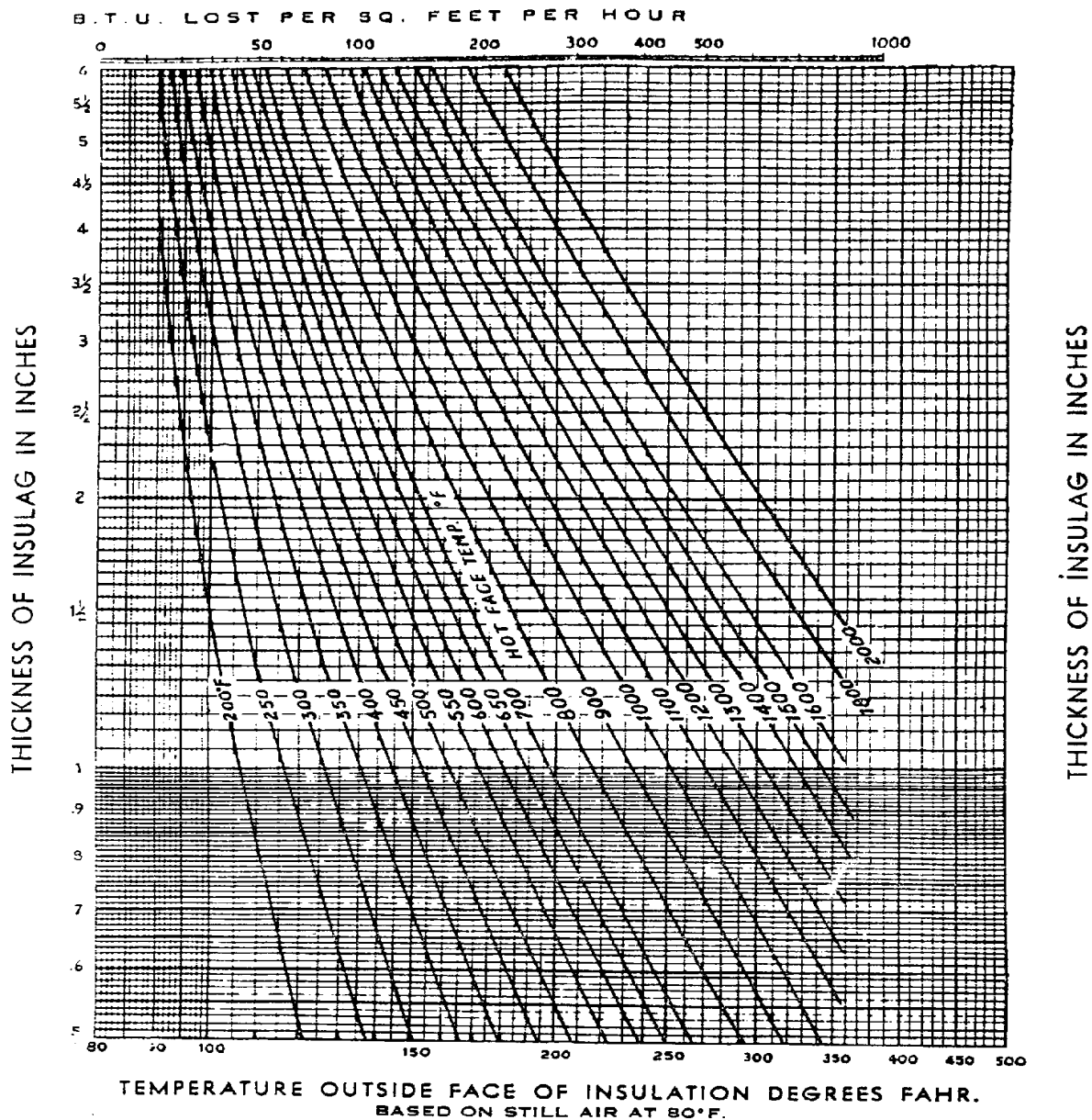


Fig. 9—Stress Relieving Furnace Insulated WITH INSULAG.

QUICK SUMMARY

- 1. Equals 3 in. of fire brick in insulating value.
- 1. to heat storage capacity of fire brick for same heat flow.
- High mechanical strength.
- Operating temperature 2200° F. interface.
- Light weight—yet rugged and strong.
- Sets quickly.
- Adaptable—suitable for practically every lagging need.
- Water resistant—steam, oil or water leaks do not destroy.
- Expands—an inch applied is more than an inch when dried.
- 3 lbs. of Insulag covers 1 sq. ft. 1" thick.
- Packed in 100 lb. bags.



TEMPERATURE OUTSIDE FACE OF INSULATION DEGREES FAHR.
BASED ON STILL AIR AT 80°F.

BASED ON STILL AIR AT 80°F.

How to Determine Heat Savings Effected by INSULAG.

Chart above indicates the heat loss through graduated combination thicknesses of INSULAG, as well as the temperature of the outside surface of the INSULAG at given temperature for the hot surface.

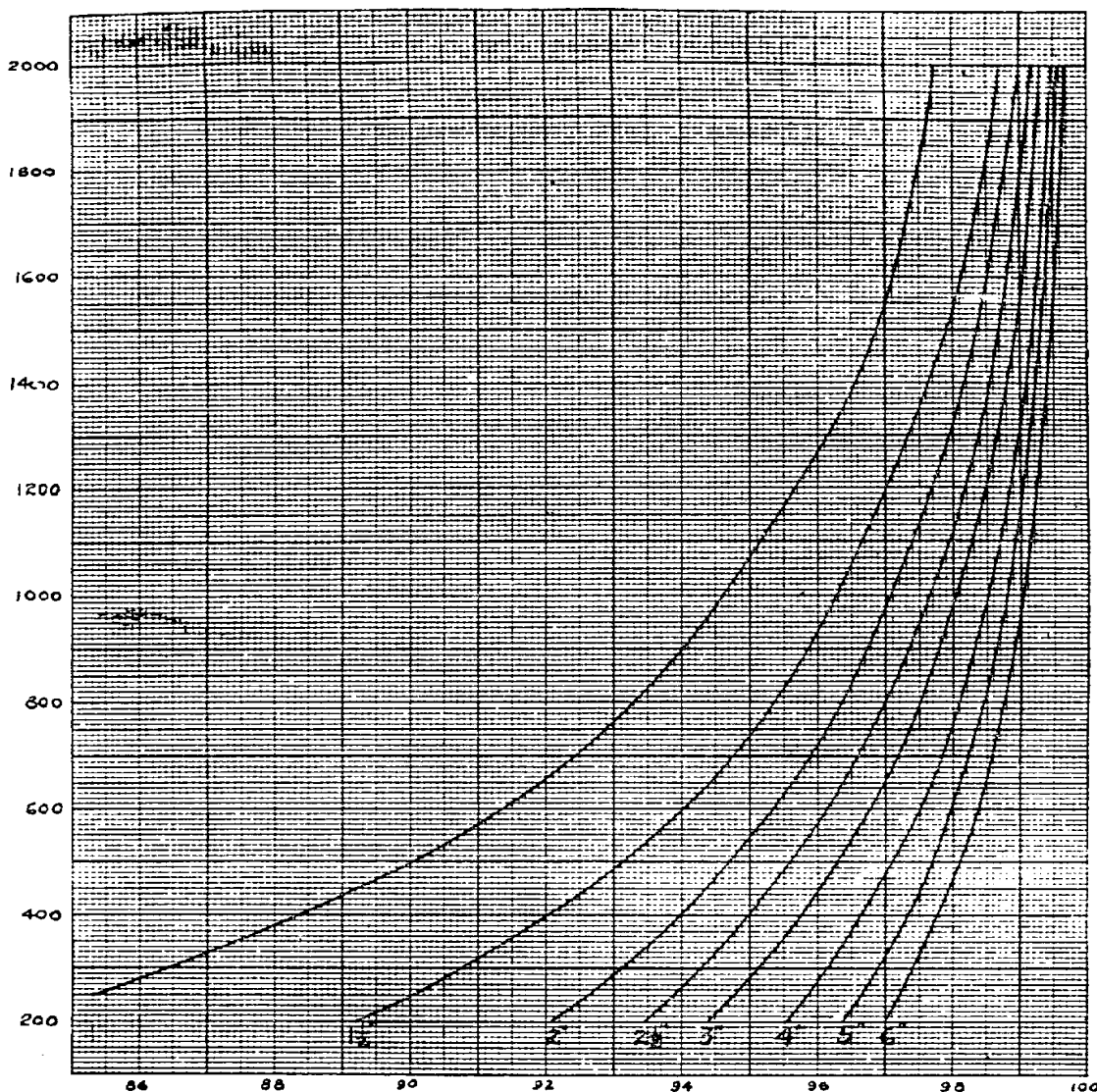
- Chart above indicates the heat loss through graduated combination thicknesses of INSULAG, as well as the temperature of the outside surface of the INSULAG at given temperature for the hot surface.
1. To determine the thickness of INSULAG required to give an outside surface temperature.
Example: Temperature of the hot surface is 500°F. What total thickness will give a temperature of about 130°F? Follow 130°F. line upward until it meets 500°F. curve line. At this point follow horizontal line and read 2 in. Therefore a 2 in. thickness of INSULAG is required.
 2. To determine the heat loss through given thickness of INSULAG or from outside face temperature.
Example: Similar conditions as that given under "1". From 130°F. at bottom of chart follow upward until you read 90 B. t. u.'s on the upper scale.

Example: Temperature of the hot surface is 500°F . What total thickness will give a temperature of about

2. To determine the heat loss through given thickness of INSULAG or from outside face temperature.

Example: Similar conditions as that given under "1". From 130°F. at bottom of chart follow upward until you read 90 B. t. u.'s on the upper scale.

TEMPERATURE HOT SURFACE DEGREES FAHR.



TEMPERATURE HOT SURFACE DEGREES FAHR.

EFFICIENCY OR PERCENT OF HEAT SAVED
BASED ON STILL AIR AT 80°F.

The efficiency of INSULAG is obtained by subtracting the heat loss through the INSULAG from the heat loss of the surface not insulated and dividing the difference by the heat loss of the surface not insulated.

Chart above indicates the efficiency or percent of heat saved by the application of various thicknesses of INSULAG.

Example: For same conditions used for chart page "8", from 500°F. following horizontal line until you intersect 2 in. curve line and reading directly downward you have 94.7%. Therefore the application of 2 in. INSULAG in a hot face of 500°F. saves 94.7% of the radiation losses.

OTHER QUIGLEY PRODUCTS

INSULBRIX

(Reg. U. S. Pat. Off.)

INSULBRIX are light weight cellular low heat storage insulating fire brick for direct or indirect exposure to temperatures in boilers, stills, metallurgical furnaces, ovens, and kilns. Made for service temperatures up to 3000°F.

INSULBRIX are made in several brands from one-tenth to one-seventeenth the heat storage capacity of heavy refractories for same heat flows. 1" has an insulating value of 2 1/2" to 5" of fire brick, permits heated equipment to reach operating conditions in less time and meet fluctuations more rapidly.

Result in increased output, conservation of fuel, decreased labor costs, improved furnace control and greater comfort to the workmen.

INSULCRETE

(Reg. U. S. Pat. Off.)

INSULCRETE is a light weight cellular insulating refractory concrete for furnace linings, floors, door linings, heat shields, shapes, covers, and kindred uses; recommended for temperatures up to 2500°F. No cutting, fitting or ramming—just pour into place.

1" of INSULCRETE equals about 4" of fire brick in insulating value and has about one-seventh the heat storage capacity of fire brick walls of equal heat flow.

INSULCLAD

(Reg. U. S. Pat. Off.)

INSULCLAD is a surfacing material used for armor coating insulating brick. It seals the pores making an impermeable monolithic surface which greatly reduces dusting and gas absorption, reduces heat flow through walls, resists abrasion and penetration.

INSULBOND

(Reg. U. S. Pat. Off.)

INSULBOND—a high refractory bonding mortar, in dry or plastic form, for bonding INSULBRIX.

INSULINE

(Reg. U. S. Pat. Off.)

INSULINE GROUND—used as an insulating fill of low heat storage capacity in back of thin furnace walls at service temperatures up to 2600°F. 1" of INSULINE GROUND has insulating properties equal to about 6" of fire brick.

INSULINE SIZED AGGREGATE—used as an insulating fill or with Portland cement or other suitable binders to make an insulating concrete.

OTHER QUIGLEY PRODUCTS

A Quigley Product for every refractory purpose

BONDING MORTARS—Fire Brick, High Silica Brick, Insulating Fire Brick

Hytempite—Airset (wet)
Fire Mortar—Airset (dry)
QT Set—Heat Set (dry)
Q-Chrome—Airset Chrome (dry)
Insulbond 2600—Airset (wet)
Insulbond 2800—Airset (wet)
Insulbond 3000—Airset (wet)

CASTABLES—Fire Brick, High Silica Brick, Insulating Fire Brick

Cast Refract—Fire Clay Fire Brick Castable
Insulcrete—Castable Lightweight Insulating Fire Brick
Hearth-Crete—Chrome Magnesite Castable
Chromecrete—Chrome Base Castable

PLASTICS—Fire Brick, Chrome Ore

Mono-Line—Plastic Fire Brick
Chromix—Chrome Ore Plastic

FIRE BRICK—Fire Clay—Super Duty and High Alumina—Missouri—Pennsylvania

INSULATING FIRE BRICK

Insulbrix—2600
Insulbrix—2800
Insulbrix—3000

REFRACTORY COATINGS—Fire Clay, High Silica Brick, Insulating Fire Brick

Q-Chrome—Airset Chrome (dry)
Insulclad—Airset (dry) Acid Resistant Base

INSULATION

Insulag—Plastic Insulation

ACID PROOF CEMENTS

Black Acid Proof Cement—Airset (wet)
Gray Acid Proof Cement—Airset (wet)
Quick-Setting Acid Proof Cement—Airset (dry)
White Acid Proof Cement—Quickset (dry)

For further information write

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527 Fifth Avenue

In Canada, Quigley Company of Canada, Ltd., Toronto, P. Q.
Distributors With Stocks and Service in Important Industrial Areas Throughout the British Empire, Canada, and in 32 Other Countries