

WILLARD A. SELLE, Inc.

TELEPHONE 333-1438 • 215 N. POPLAR ST.

EL PASO, TEXAS 79901

February 2, 1967.

PLAINTIFF'S EXHIBIT

ASA-930

American Smelting & Refining Co.
P.O. Box 1111
El Paso, Texas 79947

Attention: Mr. Joe English

Re: 1952 Reverb - Roaster Plate
Treater

Gentlemen:

We are pleased to quote the total sum of \$1,644.00 to furnish and apply insulation in connection with the above referenced project. Our quotation is based on a complete insulation job as shown on your drawing Number EP 7932 and shall be limited to the areas exposed to the weather as designated by Mr. English. We will furnish all material, labor, tools, scaffolding, etc. necessary for a complete job as outlined in our proposal.

We propose to remove existing insulation that is damaged and replace it with Owens-Corning Fiberglas Corp's PF615 Rigid Industrial Insulation, 2" thick, impaled over mechanical fasteners. A skim coat of insulating cement shall be applied over both existing and new insulation. The insulated surfaces shall be weatherproofed with mastic and glass cloth membrane reinforcing.

Applicable state taxes are included in our quotation.

In accordance with Mr. English's instructions, we are basing this quotation on acceptance of our proposal as outlined in our letter of January 23, 1967. The acceptance of both projects with work to be performed consecutively would be advantageous since scaffolding, tools, personnel, etc. would be on the premises. This quotation cannot be accepted independently of the other under its present terms.

We appreciate very much the opportunity to quote on this project. We hope we may be of service to you.

Respectfully submitted,

WILLARD A. SELLE, INC.

Bob Crockett

Bob Crockett

BC/p

Cottrell Repairs

Exhibit "C"

Distributors For

OWENS-CORNING FIBERGLAS CORPORATION • JOHNS-MANVILLE

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OWENS-CORNING
FIBERGLAS

plumbing systems
mechanical systems
industrial systems
February, 1965

Equipment Insulations



PF 610 Industrial Insulations

*a complete range of highly efficient
insulating boards for heated and cooled
equipment operating at temperatures
from -120F to 450F.*

uses

Fiberglas PF 610 Insulations find many uses wherever heat is conserved, controlled or excluded at temperatures from sub zero to 450F**. They are also excellent acoustical insulations.

Thermal Application—boilers, duct work, breeching, tanks, retorts, industrial ovens, vessels, hot water tanks.

Acoustical Application—fan and equipment rooms, sound isolation.

descriptions

Fiberglas* PF 610 insulations are made from inorganic fibers of glass pre-formed into rectangular boards with a durable thermo-setting resin. They are manufactured in a range of densities and thicknesses that permits engineers to select a product that exactly meets requirements as to form, thickness, firmness, thermal efficiency and cost.

The densities range from 2 to 12 lbs. per cu. ft.

advantages

Cuts Accurately to Dimension—Fiberglas PF 610 insulation can be easily cut to intricate forms and shapes. Notches, cutouts, grooves or bevels can be cut with an ordinary knife. The insulation cuts clean and even without deforming or fraying at the edges. No cornerbeads are needed with PF-615 to 619 to obtain square corners on finished work.

Dimensionally Stable—PF 610 insulations are dimensionally stable. They will not warp, shrink, sag, rot or slump.

Non-Corrosive—Fiberglas is inert. It will not cause or accelerate corrosion of any metal and, of particular importance, it will not cause **Stress Corrosion Cracking** of stainless steel.

Wide Range of Densities and Thicknesses—PF 610 insulations are made in 9 densities. There is a particular density and thickness to meet almost any insulating requirement within the temperature limits of the material. The lighter densities are resilient semi-rigid insulations with excellent compression recovery. The heavier densities are rigid boards having exceptional thermal efficiencies and abuse resistance characteristics.

Paintable Surface—The heavier density boards from PF-615 to PF-619, may be ordered sanded at the factory to give a smooth surface on one side. The sanded surface may be spray-painted to

give an attractive finish without impairing their acoustical properties, with a water base paint.

Moisture Resistance—Should the insulation become wet, it will dry out rapidly when exposed to dry air without loss of integrity or thermal efficiency.

Fire Safety—Fiberglas will not burn or support combustion.

Excellent Thermal and Acoustical Properties—Fiberglas is one of the most efficient insulators known. The millions of entrapped air cells provide a superior barrier to the flow of heat and soak up unwanted sound. PF-610 series offers a broad selection of thermal and acoustical performance features.

*T.M. Reg. OCF Corp.

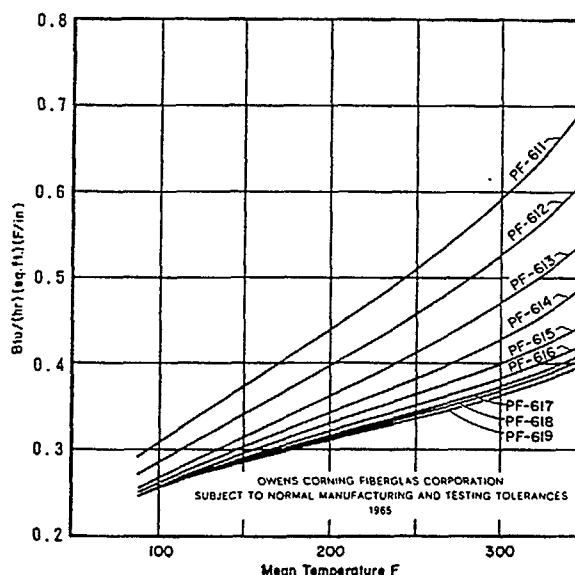
**Refer to OCF CAS #GL-E61 for maximum recommended thickness expressed as a function of density and temperature.

physical properties

	PF-611	PF-612	PF-613	PF-614	PF-615	PF-616	PF-617	PF-618	PF-619
density-lb./cu. ft.	2	2½	3¼	4¼	6	7¼	9	10½	12
thickness range (inches) ¼" increments	1½-5½	1-5½	¾-5	¾-4¼	½-3¼	½-2½	½-2¼	½-2	½-2
compressive strength at 10% deformation psf	35	65	105	160	300	410	530	650	1570

moisture adsorption:
 less than 0.2% by volume
bacteria and fungus resistance:
 does not breed or promote odor: essentially odorless
humidity and temperature effect:
 varying conditions will not cause spalling or crumbling when used and applied as recommended.
coefficient of expansion:
 3.5×10^{-6} in./in., F.
specific heat: 0.20 btu/lb. F
size: 24" x 48" (Standard. Other sizes available on special order)

Thermal conductivity



application

PF-611 to PF-614 are semi-rigid flexible boards normally applied over welded pins or retained by exterior finish supported by the pins or welded channels and not by the insulation itself.

PF-615 to PF-619 are rigid boards that may be finished with metal lath and cement, canvas, glass fabric or water proof mastic finishes. These heavier density boards are recommended where the insulation will be subjected to mechanical abuse and board-like characteristics are desired.

On equipment operating at low temperatures, a vapor barrier is required according to OCF recommended specification.

Consult your nearest Fiberglas Branch office for application details on hot or cold applications.

Federal Specification Compliance:

HH-I-542 (Int. Amend. 1)—Insulation Felt, Thermal Mineral Wool (For Low Temp.): **Type II**, Semi-Rigid (All densities)

HH-I-562 (Int. Amend. 2)—Insulation Thermal Mineral Wool, Block or Board: **Type I**, **Class 1**, Load Bearing PF-617, PF-618, PF-619); **Class 2**-Non-Load Bearing (PF-615)

HH-I-564—Insulation; Mineral Wool, Block or Board (For Heated Surfaces): **Form 1**, **Class A** (Block), (PF-615, PF-617, PF-618, PF-619); **Form II**, **Class A** (Board) (PF-615, PF-617, PF-618, PF-619)

Recommended Thicknesses (indoors)

KEY

RT—recommended thickness (inches)
 HL—heat loss (B.T.U./sq. ft.-hr.)
 EFF—efficiency (%)
 ST—surface temperature (Deg. F)
 HG—heat gain (B.T.U./sq. ft.-hr.)

for hot equipment—ambient still air temperature—80 F (PF 615)
 Thickness—based on Surface Temperature

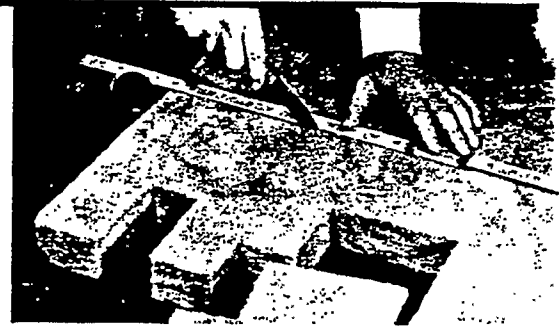
Equip. Temp. F	COMMERCIAL				POWER				PROCESS			
	RT	HL	EFF	ST	RT	HL	EFF	ST	RT	HL	EFF	ST
to 200 F	¾"	35	87	102	½"	41	84.9	104	½"	41	84.9	104
201-300 F	1½"	38	93.9	103	¾"	69	88.8	119	½"	91	85.4	130
301-400 F	2½"	38	96.7	103	1½"	60	94.6	114	¾"	112	89.8	140

for cold equipment—ambient still air temperature—90 F (PF 615)
 Thickness—to prevent Surface Condensation

conditions	90% RH		85% RH		80% RH	
equipment temperature	RT	HG	RT	HG	RT	HG
above 50 F	2"	4.6	1"	8.5	¾"	11.2
+50 to +35 F	3"	4.8	1½"	8.3	1"	11.5
+34 to 0 F	4"	5.0	2½"	7.6	1½"	11.2
†—1 to —30 F	5½"	4.8	3¾"	8.0	2½"	11.2
†—31 to —60 F	7"	4.8	4"	8.0	2¾"	11.3
†—61 to —120 F	8½"	4.7	5"	8.0	3¾"	12.0

† For temperatures below 0 F consult Owens-Corning Fiberglas for additional application recommendations.

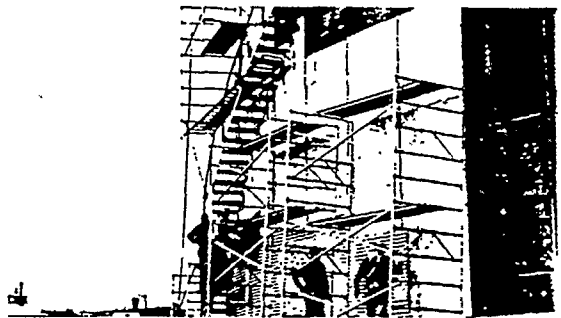
Steam generator with Fiberglas Equipment Insulation and a sheet abrasion jacket gives an attractive maintenance-free installation.



Fiberglas PF Insulations can be cut with an ordinary knife leaving a clean edge to fit around protrusions or curves.



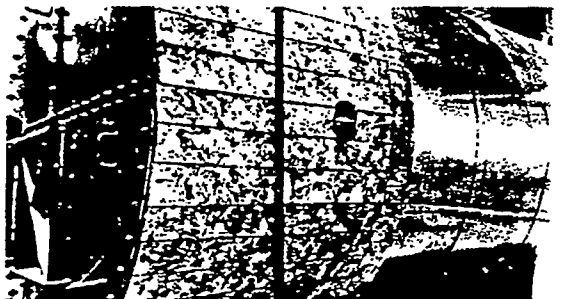
After any necessary cutting and shaping, Fiberglas Equipment Insulation can be banded in place or held with welded pins or studs.



For a good weather-resistant finish, Fiberglas Equipment Insulation is protected with corrugated metal sheets.



For an indoor finish on heated equipment, hydraulic setting insulating cement is used, then canvas and a coat of resin base adhesive.



acoustical properties

Fiberglas PF Insulations have excellent acoustical properties. The millions of tiny entrapped air spaces absorb up to 95% of the sound striking the surface. The broad range of densities gives the designer an opportunity to select the right insulation to solve a particular sound absorbing problem. The heavier density products have greater sound absorbing ability at the lower frequency ranges and are recommended for fan or equipment rooms where the need to absorb these frequencies is quite important.

Uses

Fiberglas PF Insulations find a wide variety of uses.

Primary use is in fan or equipment rooms. It is also used in radio and television studios and behind luminous ceilings as a sound absorbing medium.

Application

PF insulations may be installed by impaling over Stic Klips or Nylon Hangers and secured with speed washers, or, between furring strips. The insulation may be left plain or spray painted if not subject to abuse. It is normally covered with a facing material such as metal lath, perforated metal or hardboard, glass cloth or other decorative coverings. The facing can be fastened to the insulation support members.

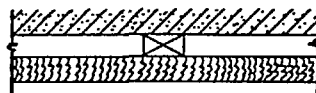
acoustical absorption

product	nominal density (lb./cu. ft.)	mounting	thickness	125	250	coefficients 500	1000	2000	4000	noise reduction coefficients
PF-611	2	#2	4"	.43	.89	.98	.94	.85	.82	.91
PF-611	2	#4	5"	.44	.96	.99	.99	.95	.90	.95
			4"	.38	.89	.96	.98	.91	.87	.85
			3"	.29	.75	.92	.96	.87	.83	.90
			2"	.19	.51	.79	.92	.82	.78	.75
			1"	.07	.23	.42	.77	.73	.70	.55
PF-611	2	#7	1"	.02	.05	.12	.60	.66	.62	.35
			1/2"	.02	.05	.12	.60	.66	.62	.35
PF-612	2 1/2	#2	1"	.08	.33	.64	.87	.79	.74	.65
PF-612	2 1/2	#4	5"	.45	.96	.99	.99	.94	.91	.95
			4"	.38	.90	.97	.98	.92	.88	.95
			3"	.29	.77	.94	.96	.88	.84	.90
			2"	.19	.52	.81	.93	.82	.79	.80
			1"	.08	.23	.48	.78	.73	.71	.60
PF-612	2 1/2	#7	1"	.03	.06	.16	.64	.67	.65	.40
			1/2"	.03	.06	.16	.64	.67	.65	.40
PF-613	3 1/4	#4	1"	.33	.68	.74	.76	.77	.80	.75
PF-613	3 1/4	#4	5"	.46	.96	.99	.99	.95	.91	.95
			4"	.39	.91	.98	.98	.92	.88	.95
			3"	.30	.78	.95	.96	.88	.84	.90
			2"	.20	.54	.85	.93	.83	.79	.80
			1"	.08	.24	.53	.80	.74	.72	.60
PF-614	4 1/4	#2	2 1/2"	.03	.06	.19	.68	.67	.66	.40
			2 1/2"	.03	.06	.19	.68	.67	.66	.40
PF-614	4 1/4	#4	5"	.47	.96	.99	.99	.96	.92	.95
			4"	.39	.91	.99	.98	.93	.88	.95
			3"	.30	.80	.96	.97	.90	.85	.90
			2"	.20	.56	.89	.93	.84	.80	.80
			1"	.09	.25	.60	.81	.75	.74	.60
PF-614	4 1/4	#7	2 1/2"	.04	.08	.20	.70	.69	.67	.40
			2 1/2"	.04	.08	.20	.70	.69	.67	.40
PF-614	4 1/4	#2	2 1/2"	.42	.77	.93	.91	.79	.77	.85
PF-614	4 1/4	#2	2 1/2"	.43	.88	.99	.92	.81	.81	.90

product	nominal density (lb./cu. ft.)	mounting	thickness	125	250	coefficients 500	1000	2000	4000	noise reduction coefficients
PF-615	6	#2	3 1/2"	.12	.20	.53	.88	.77	.69	.80
PF-615	6	#4	5"	.48	.97	.99	.99	.96	.92	.95
			4"	.40	.92	.99	.99	.95	.89	.95
			3"	.31	.81	.97	.97	.92	.86	.90
			2"	.21	.57	.92	.95	.86	.81	.80
			1"	.09	.25	.66	.84	.76	.75	.60
PF-615	6	#7	1"	.04	.08	.27	.70	.69	.68	.40
			1/2"	.04	.08	.27	.70	.69	.68	.40
PF-616	7 1/4	#4	1"	.32	.68	.80	.79	.77	.75	.75
PF-616	7 1/4	#4	5"	.49	.97	.99	.99	.97	.93	.95
			4"	.41	.92	.99	.99	.96	.89	.95
			3"	.31	.82	.98	.98	.92	.86	.90
			2"	.21	.59	.94	.95	.87	.82	.85
			1"	.10	.25	.70	.86	.77	.76	.65
PF-617	9	#2	1 1/2"	.04	.09	.31	.72	.70	.69	.45
			1 1/2"	.04	.09	.31	.72	.70	.69	.45
PF-617	9	#4	5"	.49	.97	.99	.99	.97	.93	.95
			4"	.41	.93	.99	.99	.96	.90	.95
			3"	.32	.82	.99	.98	.93	.86	.90
			2"	.22	.60	.95	.95	.88	.82	.85
			1"	.10	.26	.71	.87	.78	.76	.65
PF-617	9	#7	1 1/2"	.04	.10	.35	.73	.71	.70	.50
			1 1/2"	.04	.10	.35	.73	.71	.70	.50
PF-618	10 1/2	#2	1 1/2"	.34	.77	.90	.93	.89	.78	.85
PF-618	10 1/2	#2	1 1/2"	.10	.16	.45	.85	.77	.68	.55
PF-618	10 1/2	#4	5"	.50	.97	.99	.99	.98	.93	.95
			4"	.41	.93	.99	.99	.96	.90	.95
			3"	.32	.83	.99	.98	.94	.86	.90
			2"	.22	.60	.95	.96	.89	.82	.85
			1"	.10	.26	.72	.88	.80	.76	.65
PF-618	10 1/2	#7	1 1/2"	.05	.10	.37	.73	.72	.71	.50
			1 1/2"	.05	.10	.37	.73	.72	.71	.50
PF-618	10 1/2	#7	1 1/2"	.32	.68	.80	.79	.79	.76	.76
PF-618	10 1/2	#2	1 1/2"	.13	.18	.65	.99	.72	.41	.66

PF mountings

No. 2



On wood furring strips. Covered with 3/16" perforated Masonite with 3/16" diameter holes spaced 1/4" on center.

No. 4



Laid directly on laboratory floor

No. 7



Mechanical application

OWENS-CORNING
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OWENS-CORNING FIBERGLAS CORPORATION

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