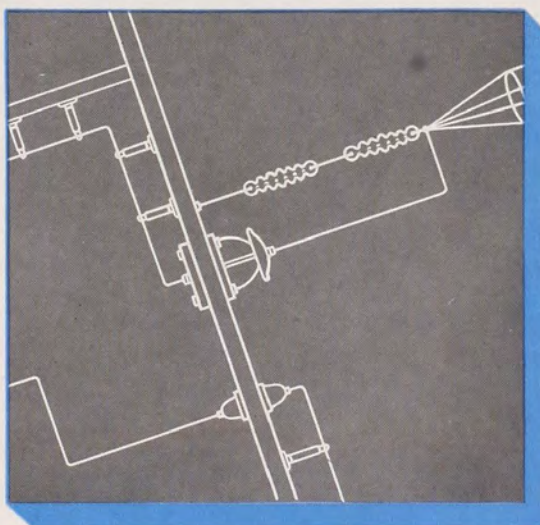




PYREX

RADIO INSULATORS



For

BETTER RECEPTION • BETTER PROTECTION • BETTER TRANSMISSION

Specified by Those Who Know Radio Best

PYREX^{brand} INSULATORS

**FOR PERFORMANCE, APPEARANCE,
UNIFORMITY, DEPENDABILITY,
AND TRUE ECONOMY**



"PYREX" is a registered trade-mark and indicates manufacture by Corning Glass Works.

The isolation of radio frequency currents and their confinement within definite circuits demand the use of non-conducting materials possessing an unusual combination of electrical and physical characteristics. Radio frequency currents tend to leak over to adjacent conductors, and materials which may offer a fairly effective barrier to the passage of currents of low frequency sometimes prove to be conductors, or at least inefficient insulators, at radio frequencies.

PROPERTIES

Essential properties for satisfactory radio insulation are low power loss, low surface conductivity, high electrical resistance, a hard smooth surface, stability against corrosive influences, and a high strength-to-weight ratio. These properties must remain permanent and unchanged by age, exposure to the elements, and the continued impact of radio energy.

Performance, which alone has won for PYREX Radio Insulators their present day supremacy, is the direct result of the inherent properties of the glass composition from which they are made. PYREX Radio Insulators are made of a material whose dielectric constant is 4.65 at one megacycle, and whose power factor is 0.42% at one megacycle. The surface conductivity is so low as to be practically negligible. The specific gravity is 2.23, so that in PYREX Radio Insulators the dual advantages of light weight and high electrical strength are combined.

The perfection of surface of PYREX Radio Insulators is an important factor in preserving their continuous efficiency. Except in heavy storms, rain does not form a continuous film on the surface, and as atmospheric dust particles find no pores or cracks for

permanent lodgment, a mild rainfall washes away anything which may have settled on the insulator surface. The surface of PYREX Radio Insulators furthermore has no added glaze to craze or check and no pores to pit. The surface and body are one homogeneous and uniform structure.

The stability of PYREX Radio Insulators against corrosive influences renders them immune to the attack of acid fumes, smoke, fog and salt sprays. For this last reason, PYREX Insulators are widely used for marine communication systems.

PYREX Radio Insulators, because of their coefficient of expansion of 0.0000032 between 0 deg. C. and 300 deg. C., are indifferent to heat shock and abrupt temperature changes. Tropical sunshine does not create strains within them. The sudden chill of a summer hailstorm does not affect them.

PERFORMANCE RECORD

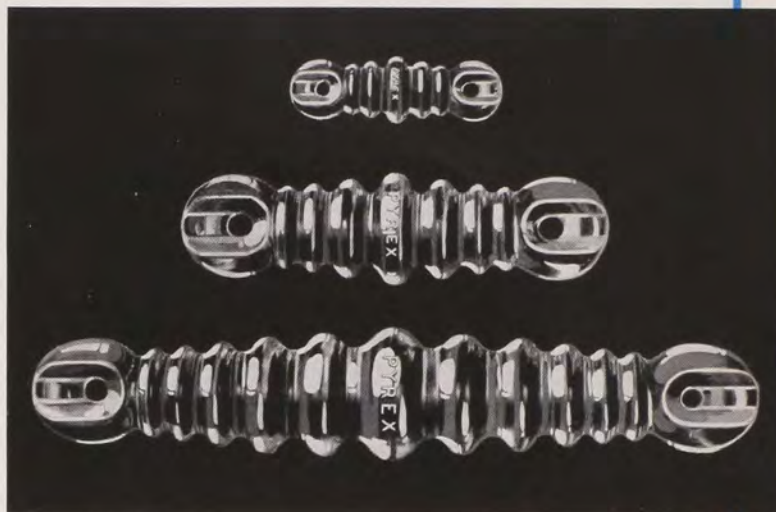
PYREX Insulators have played their part in many spectacular examples of extreme service. They have been with Commander Byrd at the North and South Poles. They were an important part of the radio equipment of the Louise A. Boyd and the MacGregor Arctic expeditions. The Atlantic Ice Patrol sends warnings of icebergs over antennae equipped with PYREX Radio Insulators. They are used by the United States Army Signal Corps, the Coast Guard, the Navy, and the Lighthouse Service. On your own equipment they will perform the same duties and provide the same unfailing service. Your jobber can supply you with all, save the least frequently used types, which can be obtained promptly from us.

PYREX ANTENNA INSULATORS

**For Superior Sending
and Reception.**

**For Longer Life and
Trouble-Free Service.**

Antenna Insulators are barriers which confine radio energy to the collecting wire. Using leaky Insulators is like using a sieve to collect rain water. Specify PYREX brand Insulators for insurance against energy leakage.



Top 67007—Center 67017—Bottom 67021

Number	Description	Length Over-all	Developed Leakage Path	Average Flashover Value (KV)		Minimum Ultimate Strength	Price Each, List
				Wet	Dry		
67007	Broadcast Reception Insulator	3 ⁵ / ₈ "	2 ⁹ / ₁₆ "	28	42	300 lbs.	\$.25
67017	Amateur Transmitting Insulator	7 ¹ / ₂ "	6 ¹ / ₁₆ "	54	70	800 lbs.	1.00
67021	Strain Insulator	12 ¹ / ₄ "	11 ³ / ₁₆ "	87	121	1000 lbs.	3.00
67003	Galvanized Shackles for installing 67017 or 67021; one pair per insulator; Price per pair						1.00

Prices Include Packing Costs

Low Surface Conductivity - The surface resistance of PYREX brand glass at 34% humidity is 10^{14} ohms per square inch; at 84% humidity it is 10^{10} ohms per square inch.

PYREX ENTERING INSULATORS

Amateur Type

Here are practical, convenient lead-in Insulators designed specifically for amateur use. The bowls are made of PYREX brand Electrical Glass which possesses high dielectric strength and low power loss. They will give clearer signals and better operation, particularly under adverse conditions. The flanges on these bowls are wide and flat, bringing a large enough surface in contact with the wall to minimize slipping. The ruggedness of the bowls together with the rubber gaskets permits a water-tight, permanent installation. The rods are threaded except for $2\frac{1}{2}$ " in the center. All sizes are supplied with four brass jamb nuts, two brass washers, two rubber washers and two rubber gaskets.



67104 - 67105



67115 - 67116

Number	Bowl	Length Center Pin	Outside Diameter	Price Each, List
67104	67056	15"	$2\frac{1}{2}$ "	\$2.00
67105	67056	20"	$2\frac{1}{2}$ "	2.20
67115	67009	15"	$6\frac{1}{16}$ "	3.50
67116	67009	20"	$6\frac{1}{16}$ "	3.60

Prices Include Packing Costs

PYREX ENTERING INSULATORS

Airplane Type

67056—Glass Bowl only, clear or opaque.*

67075—Two 67056 Bowls with Brass Fittings but no guides. Has solid brass rod $\frac{1}{4}$ " diameter, $5\frac{1}{4}$ " long.

67079—Two 67056 Bowls with Brass Fittings and guides, as illustrated. Has hollow brass rod $\frac{3}{8}$ " diameter, $5\frac{1}{8}$ " long.

67056-61—One 67056 Bowl with Brass Fittings, as illustrated.



67079



67056-61

Number	Outside Diameter	Over-all Length	Price Each, List
67056	$2\frac{1}{2}$ "	$1\frac{5}{8}$ "	\$.20
67075	$2\frac{1}{2}$ "	$5\frac{1}{4}$ "	1.20
67079	$2\frac{1}{2}$ "	$6\frac{3}{4}$ "	4.50
67056-61	$3\frac{1}{4}$ "	4"	3.00

*Opaque bowls can be furnished at extra cost.

Prices Include Packing Costs

High Electrical Resistance - The volume resistivity of PYREX brand glass is 5×10^{14} ohms per cubic inch at 22°C . The resistivity is uniform throughout the entire insulator because the body is homogeneous and non-crystalline.

PYREX ENTERING INSULATORS

2 K. W. Type



67091

Number	Description	Glass	Height Over-all	Diameter at Base	Diameter of Flange	Thickness of Flange	Price Each, List
67091	Bowl only	Clear	9 $\frac{3}{8}$ "	8"	9"	$\frac{9}{16}$ "	\$4.00

Prices Include Packing Costs

PYREX STANDOFF INSULATORS



67106-67107

67108-67109



67027

Number	Height Over-all	Type of Base	Size of Base	Diameter of Glass Part	Developed Leakage Path	Average Flashover Value (KV)		Price Each, List
						Wet	Dry	
67106	3"	Oval	3 $\frac{1}{16}$ " x 1 $\frac{11}{16}$ "	1 $\frac{1}{4}$ "	1 $\frac{7}{16}$ "	13.5	22.5	\$2.25
67107	7"	Oval	3 $\frac{1}{16}$ " x 1 $\frac{11}{16}$ "	1 $\frac{1}{4}$ "	5 $\frac{7}{16}$ "	32.5	58.0	2.50
67108	3"	Rectangular	2 $\frac{7}{8}$ " x 1 $\frac{11}{16}$ "	1 $\frac{1}{4}$ "	1 $\frac{7}{16}$ "	13.5	22.5	2.25
67109	7"	Rectangular	2 $\frac{7}{8}$ " x 1 $\frac{11}{16}$ "	1 $\frac{1}{4}$ "	5 $\frac{7}{16}$ "	32.5	58.0	2.50
67027	12 $\frac{1}{4}$ "	Round	4 $\frac{3}{4}$ " diameter	2 $\frac{1}{2}$ "	10 $\frac{1}{2}$ "	73.0	96.5	7.00

All types are furnished with cap screw and washer, and brass wood screws for fastening base.

Prices Include Packing Costs

Low Loss Factor - The loss factor of PYREX brand glass at one megacycle is less than 2.0.

PYREX ENTERING INSULATORS

Navy Type

BOWLS ONLY

Number	Glass	Height Over-all	Outside Diameter at Base	Price Each, List
67009	Clear or opaque*	4 $\frac{3}{8}$ "	6 $\frac{1}{16}$ "	\$1.00
67037	Clear or opaque*	4 $\frac{3}{8}$ "	6 $\frac{1}{16}$ "	1.00

*Opaque bowls can be furnished at extra cost.



67009 - 67037

Prices Include Packing Costs

ASSEMBLED INSULATORS

Number	Bowl	Glass	Length Center Pin	Outside Diameter at Base	Price Each, List
67071	67037	Clear or opaque*	11 $\frac{1}{2}$ "	8 $\frac{3}{4}$ "	\$20.00
67076	67037	Clear or opaque*	11 $\frac{1}{2}$ "	8 $\frac{3}{4}$ "	21.00

*Opaque bowls can be furnished at extra cost.

Prices Include Packing Costs

Both types have flanges 8 $\frac{3}{4}$ " in diameter with six 1 $\frac{1}{2}$ " studs equidistantly spaced on 7 $\frac{3}{4}$ " bolt circle and are approximately 6" high from bottom of lower flange to top of center pin. Center pin is 3 $\frac{3}{8}$ " in diameter with 16 threads per inch at the ends.

Style B has studs 1 $\frac{7}{16}$ " long and in the bottom flange three equidistantly spaced countersunk 1 $\frac{1}{32}$ " holes on 7 $\frac{3}{4}$ " center circle.

Style C is furnished with a template ring 1 $\frac{1}{16}$ " thick for locating mounting holes for the 2 $\frac{9}{16}$ " studs. This template can also be used as a backing ring or washer.

Both styles have two 3 $\frac{3}{8}$ " jamb nuts for the lower end of the center pin and Style C has two 1 $\frac{1}{2}$ " jamb nuts for each stud.

The 11 $\frac{1}{2}$ " center pin is standard for both assemblies but any other length rod can be furnished at extra cost.



Style B-67071

Style C-67076



Non-porous — Non-corrosive - The smooth, non-porous surface of PYREX brand Radio Insulators is moisture-resisting and non-hygroscopic. The absence of cracks or added glaze assists in maintaining high resistivity.

PYREX STRAIN INSULATORS

Navy Type

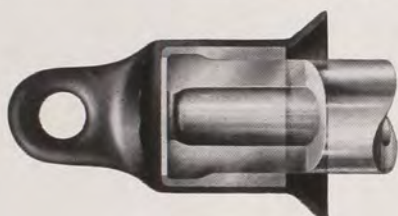
Each PYREX Navy Type Strain Insulator is actually tested to 3,500 pounds pull strain for one minute. The minimum ultimate strength is 5,000 pounds.



67045 - 67043 - 67046

Number	Average Length (L to L)	Outside Diameter of Glass Part	Developed Leakage Path	Price Each, List
67045	12"	1 $\frac{7}{8}$ "	3 $\frac{7}{8}$ "	\$ 9.00
67043	18"	1 $\frac{7}{8}$ "	9 $\frac{7}{8}$ "	9.50
67046	24"	1 $\frac{7}{8}$ "	15 $\frac{7}{8}$ "	10.00

Prices Include Packing Costs



The construction which prevents PYREX Navy Type Strain Insulators from pulling apart under high tension.

PYREX WALL TUBE INSULATORS

Supplied in three standard sizes, these new PYREX Wall Insulators can also be furnished in other lengths at extra cost. *Prices on request.*



Top 67006 — Center 67012 — Bottom 67015

Number	Outside Diameter of Tube	Outside Diameter of Knob	Inside Diameter	Length Exclusive of Knob	Overall Length	Price Each, List
67006	$\frac{9}{16}$ "	$\frac{13}{16}$ "	$\frac{5}{16}$ "	6"	6 $\frac{1}{2}$ "	\$.25
67012	$\frac{9}{16}$ "	$\frac{13}{16}$ "	$\frac{5}{16}$ "	12"	12 $\frac{1}{2}$ "	.35
67015	$\frac{9}{16}$ "	$\frac{13}{16}$ "	$\frac{5}{16}$ "	15"	15 $\frac{1}{2}$ "	.40

Prices Include Packing Costs

Attractive—Transparent—The radio man with pride in his equipment will appreciate the crisp, clean appearance of PYREX brand Radio Insulators and will realize how easy it is to maintain that appearance.

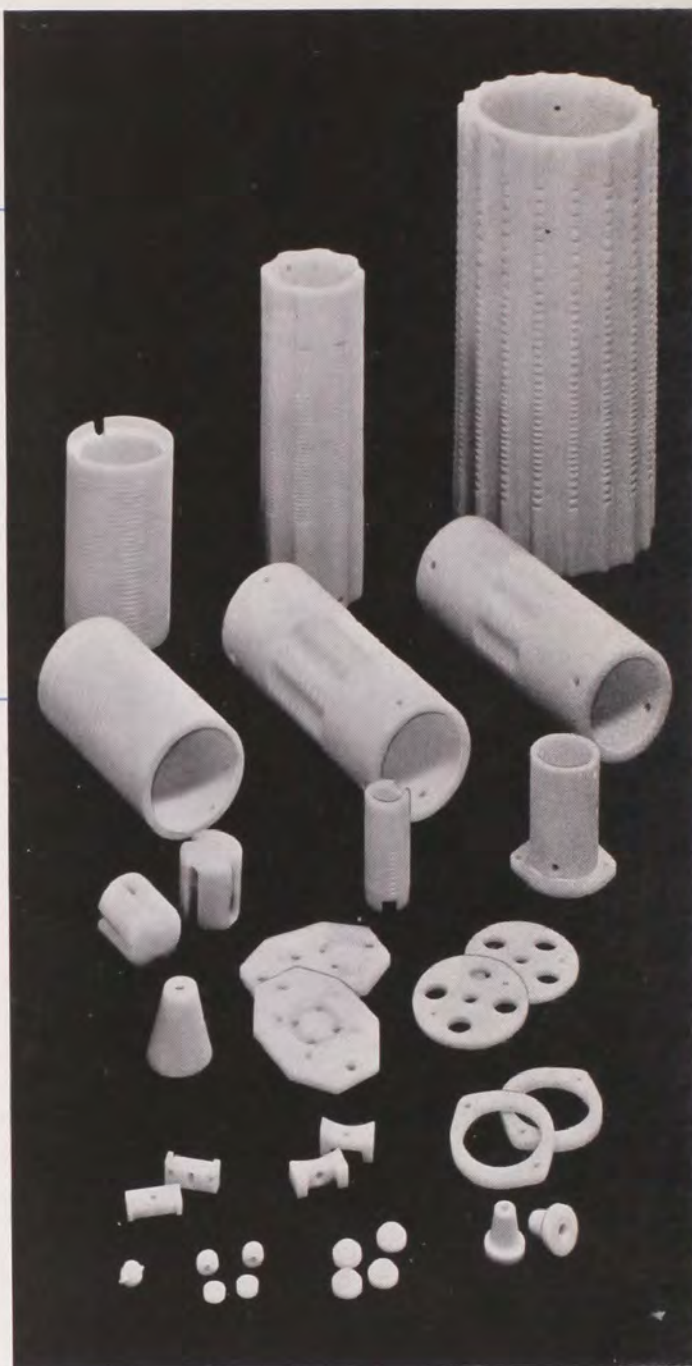
New PYREX BRAND
MULTIFORM
INSULATING PRODUCTS

The excellent insulating qualities of glass *plus* a broad range in shape and size! This is the desirable combination you get in these insulators made by Corning's new Multiform Process.

In other words, these glass insulators have high electrical resistance, low loss factor, low surface conductivity, adequate mechanical strength . . . and they are non-porous and resistant to corrosion and thermal shock. Furthermore, they can be large or small, thick or thin, solid or hollow, simple or intricate in pattern, with grooves, holes, threads. And these insulators can be held to accurate dimensions.

The picture at the right shows a few examples.

For further information and data on PYREX Brand Multiform Insulating Products, write



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Electronic Sales Dept.
BULB & TUBING DIVISION

CORNING GLASS WORKS, CORNING, N. Y.

Some Other Corning Insulating Products: RESISTOR TUBES • FUSE TUBING
NEON INSULATORS • FUSE PLUG BODIES • CYCLOTRON INSULATORS • OZONE CYLINDERS