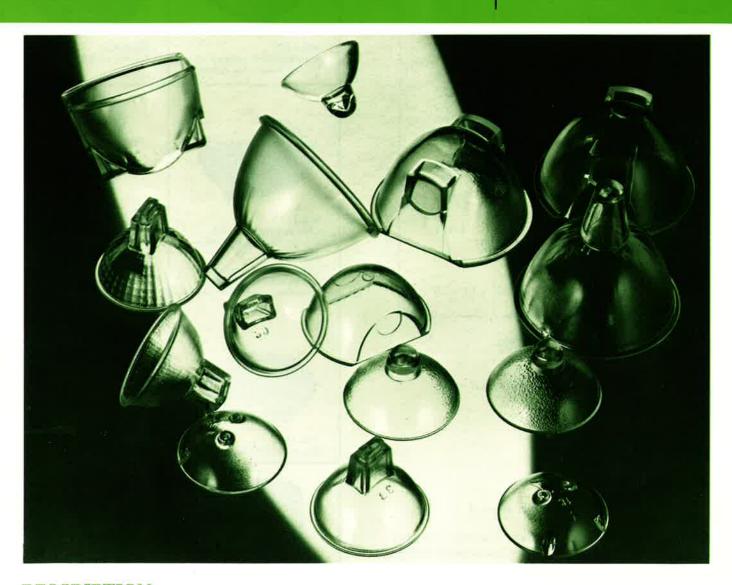


GENERAL ELECTRIC COMPANY LAMP COMPONENTS DIVISION

PRODUCT DATA SHEET 7620-a

Effective AUGUST 1, 1979

(Replaces 7620, 6-15-78)



DESCRIPTION

General Electric manufactures a large variety of round and oblong-round condensing reflectors from heatresistant borosilicate glass. These reflectors are mass-produced at high speed, with remarkable precision, using glass pressing techniques developed through many years experience.

GE borosilicate reflectors offer many advantages. They have good thermal shock resistance, and with the proper coating applied, they have the ability to transmit infrared while reflecting visible light.

AVAILABILITY

A substantial number of stock reflectors are offered in round and oblong-round shapes, from 1¾ inch to 3 inch diameters, including reflectors with smooth surfaces and ones with stippled surfaces. Certain reflectors are available with Kovar pins inserted during manufacture, or with post-forming operations to create flat sides.

In addition to stock reflector designs, General Electric's glass pressing techniques and tooling design capability can be applied to produce custom-made parts as small as $1\frac{1}{2}$ inch and as large as several inches in diameter, to individual customer designs having precise optical figure and specular surface.

APPLICATIONS

General Electric borosilicate condensing reflectors are well-suited for a number of lamp applications where a condensing reflector can replace a condensing lens. These include medical, recreation, and advertising applications as well as such photo applications as film, movie, and microfilm projectors.

TYPICAL PROPERTIES OF 776 BOROSILICATE GLASS

Color	Clear
Density (g/cc)	2.23
Young's Modulus (10 ⁶ psi)	9
Thermal Expansion (10-7 cm/cm/C) 0-300 C	33
Viscosity	
Strain Point Anneal Point Softening Point	485 C 535 C 785 C
Electrical Resistivity (Log ₁₀ Ohm-cm)	
250 C	8.5
300 C 350 C	7.7 7.0
Dielectric Constant (at 1MHz and 20 C)	4.5
Loss Tangent (at 1MHz and 20 C)	.002
Loss Factor (at 1MHz and 20 C)	_{-•} 008
Refractive Index n _d (values at 5893 Angstroms)	1.471
Dispersion (at N_f - N_c)	.0073
Useful Transmittance (exceeds 10%) (Microns)	30 - 3.5

TECHNICAL ASSISTANCE

Contact: General Electric Company

Lamp Glass Products Department

Marketing Section 24400 Highland Road Cleveland, Ohio 44143 Phone: (216) 266-6669

ORDERING

Europe

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: Company ents Division iles 1 Road

) 44117 U.S.A.

6-3295

STYLES AVAILABLE



MR-14D3 Oblong-round pressed shape 2 pins, horizontal bosses



MR-14G1 Round, round hole



Oblong-round, sawed, 2 pins, horizontal bosses

MR-15B1 Oblong-round, sawed, 2 pins, vertical bosses



MR-16C3 Round, rectangular base MR-16D3 Round, rectangular base MR-16E1 Round, rectangular base, stippled surface



MR-16F1 Round, round hole



MR-18A1 Oblong-round



MR-24A3 Oblong-round, pockets



MR-24B1 Round

Lamp Components Division is the source for tungsten, molybdenum, glass, fused quartz, Lucalox®, phosphors, chemicals, Dumet and Curnet Wire, leads, bases and other components used by the lamp, electronic and cemented carbide industries. Technical and engineering assistance is available on all products. For information contact:

> General Electric Company Lamp Components Sales Operation 21800 Tungsten Road Cleveland, Ohio 44117 (216) 266-2451 Telex: 985569

