Data Sheet
Product Data Sheet 7760-C
January 1, 1993

GE Components
Marketing & Sales Operation

Lamp Inks

Brand name identification and product description are important factors in the marketing and application of incandescent and fluorescent lamps. For this purpose, GE produces a line of specialty lamp inks that offer ease of application, excellent appearance, and the ability to withstand the effects of lamp operating temperatures over an extended period of time.

GE monogram inks are extremely smooth and exhibit excellent printability. They are either inorganic polymers of aluminum phosphate or special formulations of low melting point lead borate glass. These inks are available in different viscosities.

Lamp monogram inks are non-drying under normal ambient conditions and therefore require little attention during lamp making operations.

The inks indicated on the next page are chemically different, each designed to accommodate the manufacturing processes, glass surface and operating temperatures of a wide range of lighting products.

Applications Of Ink

In the printing operation, lamp inks are transferred from a plate to a roller and then to a rubber stamp. Once the stamp is inked, it can last up to an hour, printing thousands of marks.

Printing is followed by a heat cycle at a recommended minimum cure temperature of 350 °C – 380 °C. With the application of sufficient heat and time, the ink will bake onto the glass surface, drying to a brilliant black or silver, depending on the formulation.

The bake-in provides good adhesion and permanency, but the cure temperature is somewhat ambiguous. It depends not only on temperature and time, but also on the temperature of the glass part when the ink is applied.

Therefore, a specific curing schedule cannot be offered for general use. To assure complete bake-in, it is necessary to determine the temperature/time relationship via experimentation.

An inadequate time at any given temperature will result in incomplete curing and may result in poor marking durability and/or permanency.

GE offers several monogram inks to accommodate the properties of different glass types.

A Unique Capability

Because we use monogram inks in our own operations, GE has developed a great deal of expertise in their manufacture and use. This information proves very helpful in assisting our customers.

Whether your order is small or very large, it benefits from the high purity processing and ongoing quality control that lamp making requires.

Ordering Information

Detailed information about monogram inks is available from the Marketing & Sales Operation listed below.

GE Components
Marketing & Sales Operation
21800 Tungsten Road
Cleveland, OH 44117
(216) 266-2970

Send orders to the Customer Service Department at the Ivanhoe Road plant, address below. Direct orders for monogram inks should include pertinent engineering details and packaging instructions.

GE Chemical Products Plant
1099 Ivanhoe Road
Cleveland, OH 44110
(216) 266-4611

Use Chart: Phosphate Type Monogram Inks

Product Code	Incandescent	Fluorescent	Quartz	HID	Color	Type of Glass Used on
115-1-24	X				Black	Soda Lime
115-1-43	X				Black	Lead
115-1-49		X			Black	Soda Lime
115-1-25	Ink Thinner: Ethylene Glycol Base					

Use Chart: Borate Type Monogram Inks

Product Code	Incandescent	Fluorescent	Quartz	HID	Color	Type of Glass Used on
115-1-09	X	X		X	Silver	Borosilicate
115-1-59			X		Black	Quartz
115-1-61				X	Light Silver	Borosilicate
115-1-15	Ink Thinner: Glycerine Base					

Packaging

The standard container size for lamp inks is an 8 ounce glass bottle containing 400 grams of material.

Availability

Normal lead time for shipments is four weeks from time of order.

Material Safety Data

A material safety data sheet for this chemical is available upon request.

Total Capability In Lamp Components

GE Components Marketing & Sales Operation is the source for a variety of parts and materials, including tungsten and molybdenum wire, glass bulb blanks, tubing and pressed ware; Lucalox® ceramic, chemicals, Dumet & Cumet wire, lead wires, lamp bases and other components used by the lamp industry.

Technical and engineering assistance is available on all products.

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