



OXIDE-THICKNESS TESTER FOR DUMET WIRE

GENERAL ELECTRIC COMPANY

LAMP COMPONENTS DIVISION

PRODUCT DATA SHEET 7685-B

May, 1982

NEW



General Electric Company's oxide-thickness tester for Dumet wire establishes a new standard of measurement for this material that is far superior to previous methods.

Available for purchase from General Electric, the portable tester provides quantitative data on the thickness of cuprous oxide on the surface of borated or oxidized Dumet with a high degree of accuracy. The device works equally well using wire segments or Dumet slugs that are part of two-part welded leads.

The sealability of glass to Dumet is determined by the thickness of the oxide layer. While color of the wire is a relative indication of this thickness, color charts provide a highly subjective measure that is open to disagreement in interpretation.

The General Electric tester cues operator inputs during set-up and then directly displays the test results in

either microinches or nanometers, reducing the possibility of operator error while providing a measurable indication of Dumet sealability.

The oxide-thickness tester is a viable tool for either incoming inspection or testing on the production floor. It can handle a wide range of wire diameters and lengths, including finished slug leads. It also produces fast readings, less than three minutes for most oxide-thickness levels, with minimal sample preparation.

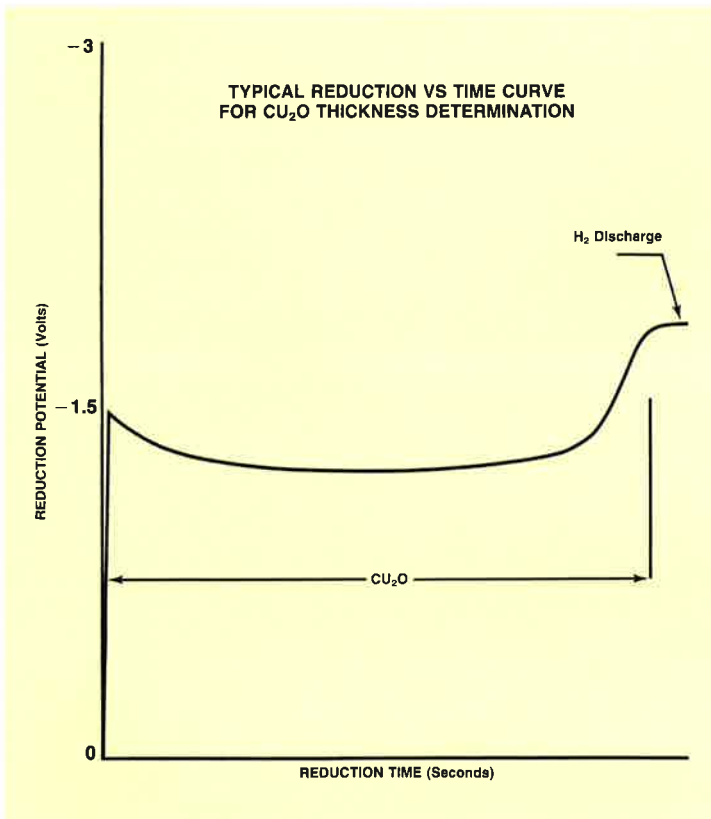
The portable tester not only determines the oxide thickness on Dumet wire, but when used in conjunction with a strip-chart recorder provides data on the uniformity of the oxide layer. Working with the tester, users can determine, with a high degree of assurance, the thickness parameters which provide the highest reliability and the lowest reject rates in their glass-sealing operations.

ENGINEERING ASSISTANCE

General Electric welcomes the opportunity to demonstrate the tester, to work with purchasers of the equipment in establishing the correct test practice, and to assist users in making determinations about the best oxide-thickness for their applications.

This equipment is state-of-the-art for measuring oxide-thickness on Dumet wire, and represents a major breakthrough in obtaining this type of data with a high degree of confidence and consistency.

If you are using Dumet wire for glass sealing, and are presently determining sealing parameters with color charts, we urge you to contact General Electric for a demonstration of the Dumet oxide-thickness tester.



The oxide-thickness tester is compatible with a strip-chart recorder that produces an oxide curve. Built-in calibration features provide a high level of test reliability.

ORDERING

To order Dumet Wire Oxide-Thickness Testers, contact your local sales representative or:

Domestic

General Electric Company
Lamp Glass & Components Dept.
Marketing Section
24400 Highland Road
Cleveland, Ohio 44143
Phone: (216) 266-3666

Europe

GENERAL ELECTRIC
Glass & Metallurgical Products
21a High Street East, Uppingham
Leicestershire LE15 9PY, England
Telef: 0572-823748/9
Telex: 34362 (GELCOS)
Telefax: 0572-823836

General Electric's Lamp Components Division is the source for tungsten, molybdenum, glass, fused quartz, Lucalox® ceramic, phosphors, chemicals, Dumet and Cumet wire, leads, bases and other components used by the lamp, electronic, cemented carbide and other 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

GENERAL  ELECTRIC