



HIGH-TEMPERATURE ELECTRICAL MEASUREMENTS

Glass Technology Services Ltd. is an independent laboratory providing a comprehensive range of services related to glass manufacture and use. Our services are backed by experienced, multi-disciplinary staff specialising in all aspects of glass technology.

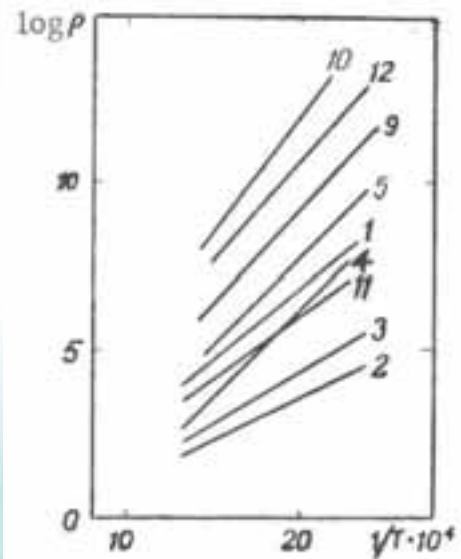
The electrical properties of glasses and related materials are often of great importance, particularly at elevated temperatures, in all-electric melting and electric booster melting glass tanks. This service is offered on both a predictive and measured basis. Predicted resistivity measurements offer a quick, inexpensive solution based on literature values for appropriate glasses in our database. Accurate measurement of high-temperature resistivity of glass is sometimes preferred, and this service is also offered.

WHY DO I NEED HIGH TEMPERATURE ELECTRICAL MEASUREMENTS?

Electrical melting of glass utilises the bulk resistivity of the glass, hence it is essential to know what this is and how it varies at elevated temperatures. Different types of glass can have very different resistivities so it is also necessary to take this into account. Changes in composition, particularly in alkali type and content, can strongly influence electrical properties.

In the graph, glass compositions 2 and 10 are very dissimilar glasses, and each would require very different melting technology.

As with all our services, the expertise and experience of GTS staff is offered to present a full interpretation of the data gathered for our customers.



RELATED SERVICES:

- Dilatometry - For thermal expansion, glass transition values
- Differential Thermal Analysis (DTA) - For batch reactions, phase changes, glass transition values
- Liquidus Temperature - For crystallisation behaviour of glasses and ceramics
- Littleton Softening Point - For ASTM standard method C338 and equivalents
- High Temperature Viscosity - For measurement of the viscosity-temperature curve

If you would like to know more about these, our other services, or any other aspect of glass technology please contact us.

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