

Australian Standard[®]

Insulating liquids

Method 2.2: Test methods— Measurement of relative permittivity, dielectric dissipation factor ($\tan \delta$) and d.c. resistivity



This Australian Standard® was prepared by Committee EL-008, Power Transformers. It was approved on behalf of the Council of Standards Australia on 7 August 2008. This Standard was published on 30 October 2008.

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 - Australian Chamber of Commerce and Industry
 - Australian Greenhouse Office, Department of the Environment, Water, Heritage and the Arts
 - Australian Industry Group
 - Australian Institute of Petroleum Ltd
 - Electricity Engineers Association, New Zealand
 - Energy Efficiency and Conservation Authority, New Zealand
 - Energy Networks Association
 - Engineers Australia
 - Testing Interests (Australia)
-

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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OF

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Insulating liquids

**Method 2.2: Test methods—Measurement of relative permittivity, dielectric
dissipation factor ($\tan \delta$) and d.c. resistivity**

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-008, Power Transformers. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide methods of determining the dielectric dissipation factor ($\tan \delta$), relative permittivity and d.c. resistivity of single phase, insulating liquid materials at the test temperature. The methods are primarily intended for making reference tests on unused liquids but can also be applied to liquids in service in transformers, cables and other electrical apparatus. Simplified procedures are also included for routine testing.

This Standard is identical with, and has been reproduced from, IEC 60247, Ed. 3.0 (2004), *Insulating liquids—Measurement of relative permittivity, dielectric dissipation factor ($\tan \delta$) and d.c. resistivity*. An explanatory Note has been added to Clause 1 (the Scope) and an editorial correction has been made to Clause 5.3. The Note in the Scope is identified by shading (example).

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