

ASTM Committee D27 Electrical Insulating and Gases Liaison Report

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IEEE/PES Transformers Committee

March 28, 2022

Denver, Colorado

AGENDA

Introduction to ASTM D27

Current Hot Topics

Future Meetings

Committee D27 on Electrical Insulating Liquids and Gases

ASTM Committee D27 on Electrical Insulating Liquids and Gases was formed in 1959. D27 meets twice each year, in November and May, with about 30 members participating in 12 meetings over two days. The Committee, with a membership of approximately 90 members, currently has jurisdiction of over 60 approved standards that are published in the Annual Book of ASTM Standards, Volume 10.03

D27 Committee Scope

The promotion of knowledge pertaining to electrical insulating liquids and gases, whether of synthetic or natural origin, and the recommendation of standards pertinent to these materials.

The principal materials included in this scope are oils of petroleum origin, synthetic liquids, halogenated and other gases, when used, singularly or as combinations, as electrical insulation or as an environment for electrical insulation.

Standards peculiar to solid insulating materials and varnishes and the development of standards pertaining to the nonelectrical uses of liquid and gaseous materials are excluded from the scope of Committee D27. Development in these fields incidental to the normal work of Committee D27 will be coordinated with the appropriate technical committees of the Society.

Committee Officers

Chairman:	Lance R. Lewand
Vice-chairman:	Edward W. Casserly
Secretary:	Michael Bonn
Staff manager:	Kelly Paul
Admin assistant:	Lindsey Limone
Editor:	Christine Leinweber

Subcommittees

D27.01 Mineral

D27.02 Gases and Non-Mineral Oil Liquids

D27.03 Analytical Tests

D27.05 Electrical Test

D27.06 Chemical Test

D27.07 Physical Test

D27.15 Planning Resource and Development

D27.90 Executive

D27.91 I.E.C. TC 10 and Advisory

D27.95 Awards, Special Events, and Bylaws.

ASTM D27 Hot Topics

Last meeting: May, 17-18 2021 Virtual

Subcommittee Reports

D27.01 - Mineral Oils, Jimmy Rasco:

- The new standard specification for rerefined mineral insulating oil (WK31231) in ballot resolution. Will be reballoted due to persuasive negatives.

D27.02 - Gases and Non-Mineral Oil Liquids, Denis Lafrance:

ASTM D27 Hot Topics

D27.03 - Analytical Tests, Claude Beauchemin:

- Item 1. Reapproval of D2144-2007(2013) Practices for Examination of Electrical Insulating Oils by Infrared Absorption
- Item 2. Reapproval of D26687-2007(2013) Test method for 2,6-di-tert-Butyl-pcresol and 2,6-di-tert-Butyl Phenol in Electrical Insulating Oil by Infrared Absorption WK78228
- Item 3 Reapproval of D3635-2013 Test method for Dissolved Copper In Electrical Insulating Oil by Atomic Absorption Spectrophotometry WK78229

D27.05 - Electrical Tests, Sandra Smith:

D27.06 - Chemical Tests, Lance Lewand:

- Item 1. Reapproval of D2440-2013 Test Method for Oxidation Stability of Mineral Insulating Oil WK78150

ASTM D27 Hot Topics

D27.03 - Analytical Tests, Claude Beauchemin:

Standard for analysis of additives in ester insulating liquids under D27.03.

The following Proposed Title / Scope were presented.

Title: Std test method for the determination of additives in insulating liquids – Part 1 – Determination of phenolic antioxidants using liquid chromatography (LC)

Scope: This test method covers the identification and determination of phenolic antioxidants that may be found in insulating liquids by high performance liquid chromatography (HPLC) and ultraviolet (UV) detection. NOTE: Additional parts to the standard, covering other potential additives and other insulating liquids, will be developed as necessary.

ASTM D27 Hot Topics

D27.07 - Physical Tests, William Hand:

D27.95 - Awards, Special Events, Bylaws, Janet Loyd

D27.15 - Planning, Resources and Development, Kevin Rapp:

- Ballot D27 (21-02) Revision of D2864-2021 Terminology Relating to Electrical Insulating Liquids and Gases

D27.91 - IEC TC 10 Advisory, Kevin Rapp:

Kevin Rapp presented the IEC TC 10 Advisory report.

Future Meetings

May 16-17, 2023

Seattle Washington

October 30 – Nov 1, 2023

New Orleans, Louisiana