The principal materials covered in D09 standards are grades designed primarily for electrical insulating or dielectric purposes including:

- varnishes and resins; reinforced, laminated, filled and unfilled thermoplastic and thermosetting plastics;
- metal-clad dielectrics; ceramics, glass and mica; embedment resins, compounds and waxes;
- coated, extruded, cast and calendared sheet, tape and tubing;
- organic and inorganic papers, coated and uncoated;
- plastic, resin, paper, fiber, thermoset, rubber and ceramic insulation for wire;
- thermoplastic and thermosetting insulation, jacket and semi-conducting materials for insulated wire and cable; and
- Electrical test methods include procedures for measurement at direct voltage and at all frequencies, including optical frequencies.

Meetings

Individuals with knowledge and interest in the work the committee are welcome to participate. D09 meets annually at the ASTM April Committee Week.

Membership in ASTM Committee D09

The committee welcomes all technical experts with a desire to work toward further development of standards for electrical and electronic insulating materials. Just a few of the benefits you will receive when you join:

- Network with electrical professionals worldwide;
- Have direct input into the development of new and revised international standards;
- Participate in informational webinars;
- Receive a free volume of the *Annual Book of ASTM Standards*;
- Enjoy discounts on all ASTM publications;
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Committee D09 Electrical and Electronic Insulating Materials

Formed in 1909, ASTM Committee D09 develops standards related to solid and solidifying fluid electrical insulating materials, and the evaluation of all electrical, mechanical, chemical and thermal properties needed to define these materials.

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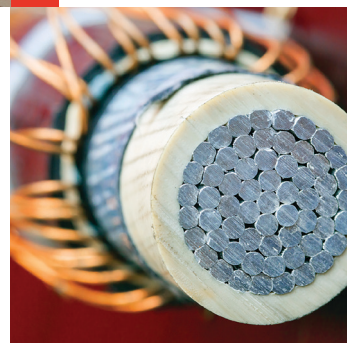
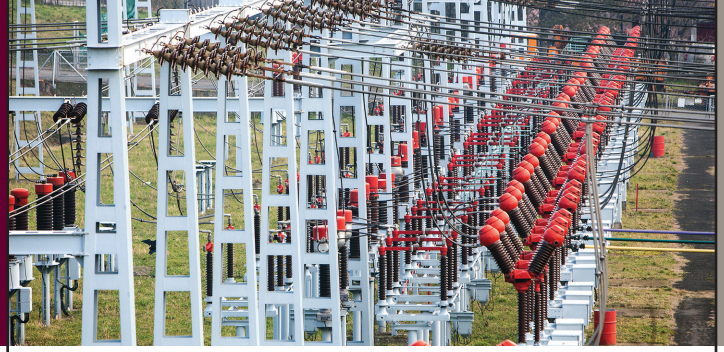


More than 115 technical experts make up the 12 subcommittees within Committee D09. They develop and oversee 150+ ASTM standards. The subcommittees and their key standards are listed below.



ASTM D09
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1 D09.01, Electrical Insulating Varnishes, Powders and Encapsulating Compounds

This subcommittee oversees test methods and specifications for electrical insulating varrnishes, powders and encapsulating compounds.

- ASTM D115, Standard Test Methods for Testing Solvent Containing Varnishes Used for Electrical Insulation
- ASTM D4733, Standard Test Methods for Solventless Electrical Insulating Varnishes

2 D09.07, Flexible and Rigid Insulating Materials

This group has developed standards using pressure sensitive tapes, sheet and plate materials, tubes, silicone materials, films and other insulating materials.

- ASTM D348, Standard Test Methods for Rigid Tubes Used for Electrical Insulation
- ASTM D2301, Standard Specification for Vinyl Chloride Plastic Pressure-Sensitive Electrical Insulating Tape
- ASTM D5213, Standard Specification for Polymeric Resin Film for Electrical Insulation and Dielectric Applications

3 D09.10, Magnet Wire Insulation

This subcommittee is responsible for test methods for magnet wire insulating materials.

- ASTM D1676, Standard Test Methods for Film-Insulated Magnet Wire
- ASTM D3288, Standard Test Methods for Magnet-Wire Enamels

4 D09.12, Electrical Tests

D09.12 standards include electrical tests covering a wide range of materials.

- ASTM D149, Standard Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies
- ASTM D150, Standard Test Method for AC Loss Characteristics and Permittivity (Dielectric Constant) of Solid Electrical Insulation

5 D09.17, Thermal Characteristics

The subcommittee has standard test methods and specifications on controlled high temperature environments where degradation of insulation materials can be evaluated.

- ASTM D5374, Standard Test Methods for Forced-Convection Laboratory Ovens for Evaluation of Electrical Insulation

6 D09.18, Solid Insulations, Non-Metallic Shieldings and Coverings for Electrical and Telecommunication Wires and Cables

D09.18 oversees standards for solid insulations, non-metallic shieldings and jackets for electrical and telecommunication wire and cables.

- ASTM D470, Standard Test Methods for Crosslinked Insulations and Jackets for Wire and Cable
- ASTM D6096, Standard Specification for Poly (Vinyl Chloride) Insulation for Wire and Cable, 90°C Operation

7 D09.19, Dielectric Sheet and Roll Products

This subcommittee is responsible for standards for materials that include insulating kraft paper and paper board, mica, thin thermally conductive insulation, and battery separators.

- ASTM D202, Standard Test Methods for Sampling and Testing Untreated Paper Used for Electrical Insulation
- ASTM D1677, Standard Test Methods for Sampling and Testing Untreated Mica Paper Used for Electrical Insulation

8 D09.21, Fire Performance Standards

This subcommittee manages fire standards primarily related to cables or materials used for cables, including six fire tests.

- ASTM D5537, Standard Test Method for Heat Release, Flame Spread, Smoke Obscuration and Mass Loss Testing of Insulating Materials Contained Electrical or Optical Fiber Cables When Burning in a Vertical Cable Tray Configuration
- ASTM D6113, Standard Test Method for Using a Cone Calorimeter to Determine Fire-Test Response Characteristics of Insulating Materials Contained in Electrical or Optical Fiber Cables

9 D09.94, Editorial Subcommittee

This subcommittee is responsible for editorial reviews of all existing or proposed D09 standards and has developed a terminology standard and a quality and sampling standard.

U.S. Technical Advisory Groups for IEC/TC 15 on Insulating Materials (D09.15) and TC 89 Fire Hazard Testing (D09.89)

These subcommittees act as the U.S. Technical Advisory Groups to the U.S. National Committees of the International Electrotechnical Commission (USNC/IEC).

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