

Tentative Method of Test for
TENSILE STRENGTH OF MOLDED ELECTRICAL
INSULATING MATERIALS¹



A.S.T.M. Designation: D 651 - 42 T

ISSUED, 1941; REVISED, 1942.²

This Tentative Method has been approved by the sponsoring committee and accepted by the Society in accordance with established procedures, for use pending adoption as standard. Suggestions for revisions should be addressed to the Society at 1916 Race St., Philadelphia 3, Pa.

Scope

1. This method of test covers the general procedure for determining the tensile strength of various molded electrical insulating materials. However, modifications in the procedure may be desirable for different types of such materials and existing methods of the American Society for Testing Materials covering the requirements for testing a given material should be consulted for special details that may apply.

Apparatus

2. Any universal testing machine may be used, provided it is accurate to 1 per cent of the lowest load to be applied. Special specimen holders made of steel, as shown in Fig. 1, shall be used for such test specimens as are of a shape to fit them. The specimen holders shall be attached to the heads of the testing machine by links held so that the pull is central to avoid any transverse

strain. Equally suitable holders, suitably mounted, shall be used for specimens of other shapes.

Test Specimen

3. Unless otherwise required, the test specimen for hot-molded and plastic cold-molded materials shall be molded to the form and dimensions shown in Fig. 2, the use of either the $\frac{1}{8}$ -in. or the $\frac{1}{4}$ -in. specimen being permissible. Values for tensile strength obtained with these two specimens may be unequal and in such cases the specimen which is considered most representative of the material and its intended use shall be tested.

Mold

4. The specimens shall be molded in molds conforming to Fig. 3 of the Tentative Specifications for Molds for Test Specimens of Molding Materials Used for Electrical Insulation (A.S.T.M. Designation: D 647) of the American Society for Testing Materials.³ The pressure and other molding conditions used in molding test specimens shall be agreed upon by the seller and the purchaser.

¹ Under the standardization procedure of the Society, this method is under the jurisdiction of the A.S.T.M. Committee D-9 on Electrical Insulating Materials.

² Revision accepted by the Society at annual meeting, June, 1942.

³ Appears in this publication, see Contents in Numeric Sequence of A.S.T.M. Designations at front of book.