

Standard Methods of Test for

PRODUCT UNIFORMITY OF PHENOLIC LAMINATED SHEETS¹



A.S.T.M. Designation: D 634 - 44

Adopted, 1944.²

This Standard of the American Society for Testing Materials is issued under the fixed designation D 634; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Scope

1. (a) These methods cover the procedures for six tests which serve to check the uniformity of the properties of a particular type or grade of phenolic laminated material produced by a particular manufacturer, and to make evident variations in portions of one particular shipment, or in shipments made from time to time.

(b) These methods do not in themselves necessarily indicate the quality of a material, or in what degree it may be suited to a particular application. They indicate variations in the laminated product which have been caused by changes made purposely or inadvertently in the manufacturing process or in the raw materials used. In some cases they also serve as a guide to the quality of the product or its suitability for some particular application.

(c) All of the test procedures apply to fabric base laminated sheets, but the procedures for thread count and ply

thickness as described in Section 4, cannot generally be applied to paper base laminated sheets, and the procedure for dielectric strength as described in Section 7 will not in general be applicable to asbestos base materials which have poor natural electrical characteristics.

Nature of Test

2. The following six methods of test are used for determining the variations in raw material or manufacturing process.

(a) *Thread Count and Ply Thickness.*—This test, applicable in general to fabric-base grades of material, indicates variations in count or weight of the fabric base used or radical changes in resin content of the material.

(b) *Acetone Extractable Matter.*—This test indicates change in stage of cure of the material, change in type of resin used, or presence of acetone extractable addition agents.

(c) *Water Absorption.*—This test indicates changes in resin content, type of resin or raw materials used, or degree of impregnation sufficient to cause changes in water absorption.

¹ Under the standardization procedure of the Society, these methods are under the jurisdiction of the A.S.T.M. Committee D-9 on Electrical Insulating Materials.

² Prior to adoption as standard, these methods were published as tentative from 1941 to 1944.