

Standard Methods of

TESTING GLASS SPOOL INSULATORS¹



A.S.T.M. Designation: D 550 - 44

ADOPTED, 1944.²

This Standard of the American Society for Testing Materials is issued under the fixed designation D 550; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Scope

1. These methods are intended to apply to the testing of glass spool insulators used for secondary power distribution.

Sampling

2. Sampling for purpose of these test methods shall be as specified. The glass insulators shall be selected in such a manner as to be representative of the lot. Sampling for testing by the purchaser on individual shipments shall be by mutual agreement between the purchaser and the seller.

Routine Tests

3. Routine tests shall consist of visual inspection for physical and structural defects, gaging for pin cavity formation, and mechanical test for structural strength, applied in that order. Mechanical strength tests shall be made only on insulators which are free from objectionable physical and structural defects and have passed visual inspection.

Structural Defects

4. The finish of the insulators as indicated by the presence or absence of structural defects, such as cracks, chips, folds, and stones, or other visible flaws covered in the purchaser's product specifications shall be determined by visual inspection.

Chips are defects caused by the fracture and complete removal of a portion of the insulator.

Folds are linear indentations of the surface of the insulator caused by the meeting and partial welding of a re-entrant portion of a surface which has been partially chilled in some previous stage of the process of manufacture.

Stones are foreign, solid, inorganic matter completely or partially surrounded by glass, usually consisting of particles of refractory material, crystalline products due to combination of refractories and glass batch constituents, particles of an incompletely melted batch, or products of devitrification of the glass.

Gaging

5. The gaging test is intended to determine whether the pin cavity is

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 1939 to 1944, being revised in 1941.