

(PREVIEW)

Indian Standard

METHOD FOR THE DETERMINATION OF THE PROOF AND THE COMPARATIVE TRACKING INDICES OF SOLID INSULATING MATERIALS

1 scope

This International standard specifies the method of test for the determination of the proof and comparative tracking indices of solid insulating materials on pieces taken from parts of equipment and on plaques of material using alternating voltages.

The standard provides for the determination of erosion when required.

NOTE 1 The proof tracking index is used as an acceptance criterion as well as a means for the quality control of materials and fabricated parts. The comparative tracking index is mainly used for the basic characterization and comparison of the properties of materials

Test results cannot be used directly for the evaluation of safe creepage distances when designing electrical apparatus.

NOTE 2 This test discriminates between materials with relatively poor resistance to tracking, and those with moderate or good resistance, for use in equipment which can be used under moist conditions. More severe tests, of longer duration are required for the assessment of performance of materials for outdoor use, utilizing higher voltages and larger test specimens (see the inclined plane test of IEC 60587). Other test methods such as the inclined method may rank materials in a different order from the drop test given in this standard

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60589 : 1977, *Methods of test for the determination of ionic impurities in electrical insulating materials by extraction with liquids*

IEC Guide 104 : 1997, *The preparation of safety publications and the use of basic safety publications and group safety publications*

ISO 293 : 1986, *Plastics – Compression molding test specimens of thermoplastic materials*

ISO 294-1 : 1996, *Plastics – Injection molding of test specimens of thermoplastic materials - Part 1 : General principles, and molding of multi-purpose and bar test specimens*

ISO 294-3 : 2002, *Plastics – Injection molding of test specimens of thermoplastic materials – Part 3. Small plates*

ISO 295 : 1991, *Plastics – Compression molding of test specimens of thermosetting materials*