

(PREVIEW)

Indian Standard

INSULATION COORDINATION FOR EQUIPMENT WITHIN LOW-VOLTAGE SYSTEM

PART 3 USE OF COATING, POTTING OR MOULDING FOR PROTECTION AGAINST POLLUTION

1 Scope

This part of IEC 60664 applies to assemblies protected against pollution by the use of coating, potting or moulding, thus allowing a reduction of clearance and creepage distances as described in Part 1 or Part 5.

NOTE 1 When reference is made to Part 1 or Part 5, IEC 60664-1 or IEC 60664-5 are meant.

This standard describes the requirements and test procedures for two methods of protection:

- type 1 protection improves the microenvironment of the parts under the protection;
- type 2 protection is considered to be similar to solid insulation.

This standard also applies to all kinds of protected printed boards, including the surface of inner layers of multi-layer boards, substrates and similarly protected assemblies. In the case of multi-layer printed boards, the distances through an inner layer are covered by the requirements for solid insulation in Part 1.

NOTE 2 Examples of substrates are hybrid integrated circuits and thick-film technology.

This standard refers only to permanent protection. It does not cover assemblies that are subjected to mechanical adjustment or repair.

The principles of this standard are applicable to functional, basic, supplementary and reinforced insulation.

1.2 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 60068-2-1:1990, Environmental testing – Part 2: Tests – Tests A: Cold
Amendment 1 (1993)
Amendment 2 (1994)

IEC 60068-2-2:1974, Basic environmental testing - Part 2: Tests, Tests B:
Dry heat
Amendment 1 (1993)
Amendment 2 (1994)

IEC 60068-2-14: 1984, Basic Environmental testing procedures - Part 2: Tests, Test N: Change of temperature
Amendment 1 (1986)

IEC 60068-2-78:2001, Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state

IEC 60249-1:1982, Base materials for printed circuits - Part 1: Test methods Amendment 4 (1993)

IEC 60249-2 (all parts), Base materials for printed circuit - Part 2: Specifications

IEC 60326-2:1990, Printed boards - Part 2; Test methods
Amendment 1 (1992)

IEC 60454-3-1: 1998, Pressure-sensitive adhesive tapes for electrical purposes - Part 3: Specifications for individual materials - Sheet 1: PVC film tapes with pressure-sensitive adhesive

IEC 60664-1:1992, Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests
Amendment 1 (2000)
Amendment 2 (2002)

IEC 60664-5:—, Insulation coordination for equipment within low-voltage systems - A comprehensive method for determining clearance and creepage distances equal to or less than 2 mm¹⁾

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

1) To be published