

INTERNATIONAL STANDARD

NORME INTERNATIONALE

BASIC SAFETY PUBLICATION

PUBLICATION FONDAMENTALE DE SÉCURITÉ

AMENDMENT 1

AMENDEMENT 1

**Insulation coordination for equipment within low-voltage systems –
Part 3: Use of coating, potting or moulding for protection against pollution**

**Coordination de l'isolement des matériels dans les systèmes (réseaux) à basse
tension –**

**Partie 3: Utilisation de revêtement, d'empotage ou de moulage pour la protection
contre la pollution**

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tension –**

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

F

ICS 29.080.30

ISBN 978-2-88910-940-1

FOREWORD

This amendment has been prepared by IEC technical committee 109: Insulation coordination for low-voltage equipment.

The text of this amendment is based on the following documents:

FDIS	Report on voting
109/79/FDIS	109/81/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

The contents of the corrigendum of November 2010 have been included in this copy.

2 Normative references

Replace the existing text by the following:

IEC 60068-2-1:2007, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60068-2-2:2007, *Environmental testing – Part 2-2: Tests – Test B: Dry heat*

IEC 60068-2-14:2009, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

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

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*
Amendment 1 (2001)

IEC 60664-1:2007, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 60664-5:2007, *Insulation coordination for equipment within low-voltage systems – Part 5: Comprehensive method for determining clearances and creepage distances equal to or less than 2 mm*

IEC 61189-2:2006, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 2: Test methods for materials for interconnection structures*

IEC 61189-3:2007, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 3: Test methods for interconnection structures (printed boards)*

IEC 61249-2 (all Parts 2) *Materials for printed boards and other interconnecting structures – Reinforced base materials, clad and unclad*

IEC Guide 104:2004, *The preparation of safety publications and the use of basic safety publications and group safety publications*

4.2 Application range regarding environment

Replace, in the second paragraph, "3.3.2.3 ..." by "5.3.2.4 ..."

4.4 Dimensioning procedures

Replace in the first paragraph, "3.1 and 3.2 ..." by "5.1 and 5.2 ..."

At the end of the second paragraph add the following sentence:

These values may also be applied to functional insulation.

5.1 General

Add the following note after the first paragraph:

NOTE The suitability of protection is evaluated after the scratch resistance test described in 5.5, the visual examination described in 5.6 and the subsequent conditioning described in 5.7.

5.5 Scratch resistance test

Replace the first paragraph by the following:

NOTE In some cases, scratch resistance test cannot be applied to assemblies protected against pollution by the use of potting or moulding. In such cases, considerations for any alternatively or additional tests may be necessary

Scratches shall be made across five pairs of conducting parts and the intervening separations at points where the insulation will be subject to the maximum electric field strength between conductors.

5.6 Visual examination

Replace the first paragraph by the following:

The specimens shall be visually examined according to test 3V02 in 6.2 of IEC 61189-3:2007.

5.7.2 Dry heat

Replace the footnote in Table 2 by the following:

- a) For defined flammability, refer to 8.6 of IEC 61189-2:2006 and the relevant part 2 of IEC 61249.

5.8.3 Insulation resistance between conductors

Replace the first paragraph by the following:

The test shall be carried out according to 10.3 of IEC 61189-3:2007, the voltage specified for test method 3E03 being as close to the working voltage as possible.

5.8.4 AC withstand voltage test

Replace, in the first line “4.1.2.3 ...” by “6.1.3.4 ...”.

Replace in the second line “3.3.3.2.2 ...” by “5.3.3.2.3 ..”.

Replace in the third line “Table 1 ..” by “Table F.1 ..”.

5.8.5 Partial discharge extinction voltage

Replace, in the first paragraph, in both the second and fourth line “4.1.2.4 ..” by “6.1.3.5 ..”.

5.9.1 Resistance to soldering heat

Replace the first paragraph by the following:

The test shall be carried out according to test 3N02 of 11.2 of IEC 61189-3:2007.

5.9.2 Flammability

Replace the first sentence of the first paragraph by the following:

The test shall be carried out according to test 3C02 of 8.2 of IEC 61189-3:2007.

5.9.3 Solvent resistance

Replace the second paragraph by the following:

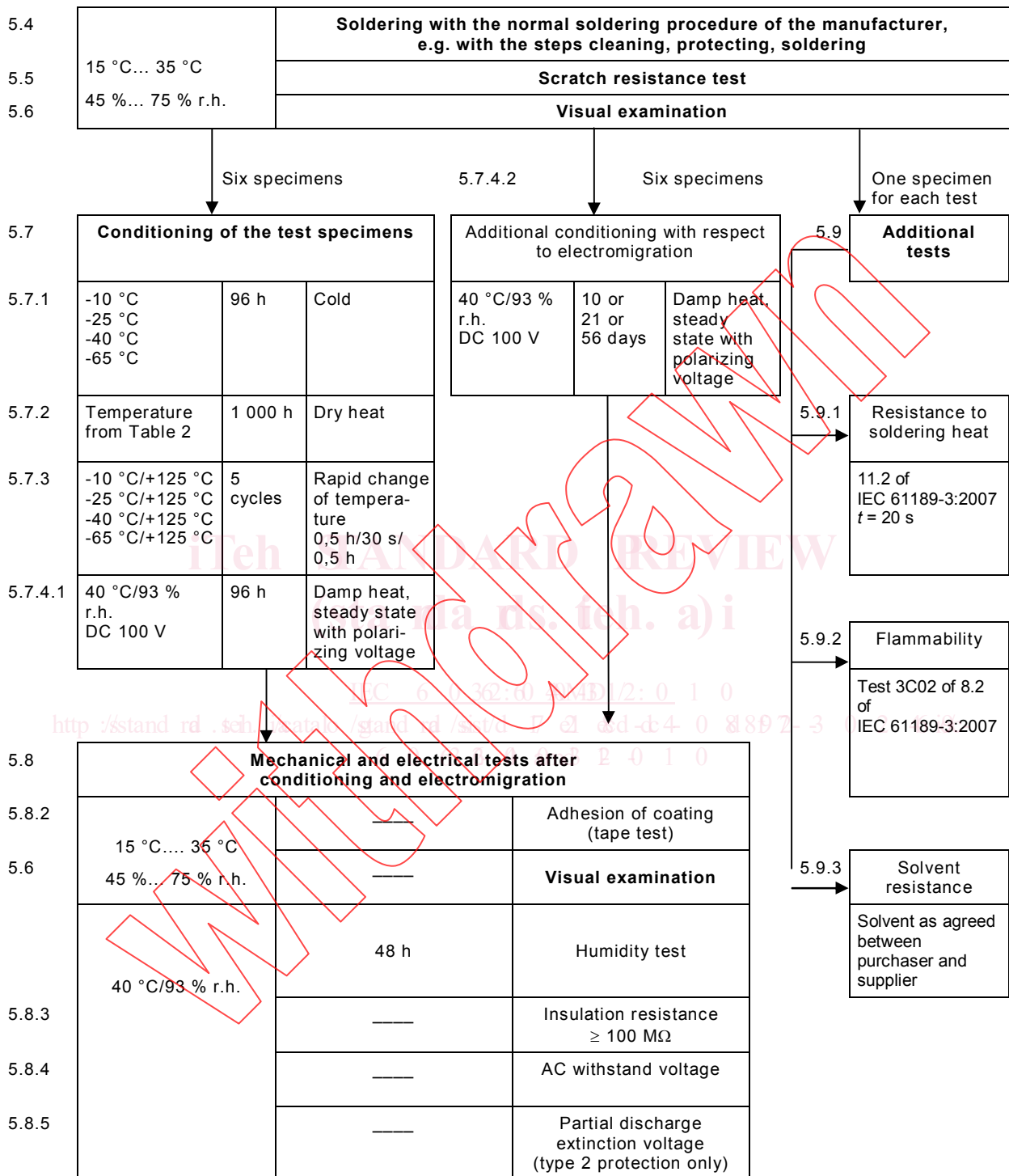
The test shall be made using such organic solvent as agreed between purchaser and supplier and as appropriate to the application.

NOTE During the handling of the organic solvent, appropriate personal protective equipment should be used.

Annex A – Test sequence

Replace the text of Annex A by the following:

The following flow-chart shows the order in which the tests of Clause 5 have to be carried out. No failure of any specimen under test is permitted.



Bibliography

Replace the existing text by the following:

IEC 60194:2006, *Printed board design, manufacture and assembly – Terms and definitions*

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<https://standards.iteh.ai/catalog/standards/sist/d1e72e18-cdc4-40d9-8f87-2302495d94f6/iec-60664-3-2003-amd1-2010>

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Withdrawing

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IEC 60644-3:2003/AMD1:2010

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AVANT-PROPOS

Le présent amendement a été établi par le comité d'études 109 de la CEI: Coordination de l'isolement pour le matériel à basse tension.

Le texte de cet amendement est issu des documents suivants:

FDIS	Rapport de vote
109/79/FDIS	109/81/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cet amendement.

Le comité a décidé que le contenu de cet amendement et de la publication de base ne sera pas modifié avant la date de stabilité indiquée sur le site web de la CEI sous "http://webstore.iec.ch" dans les données relatives à la publication recherchée. A cette date, la publication sera

- reconduite,
- supprimée,
- remplacée par une édition révisée, ou
- amendée.

Le contenu du corrigendum de novembre 2010 a été pris en considération dans cet exemplaire.

2 Références normatives

Remplacer le texte existant par le suivant:

CEI 60068-2-1:2007, *Essais d'environnement – Partie 2-1: Essais – Essais A: Froid*

CEI 60068-2-2:2007, *Essais d'environnement – Partie 2-2: Essais – Essai B: Chaleur sèche*

CEI 60068-2-14:2009, *Essais d'environnement – Partie 2-14: Essais – Essai N: Variation de température*

CEI 60068-2-78:2001, *Essais d'environnement – Partie 2-78: Essais – Essai Cab: Chaleur humide, essai continu*

IEC 60326-2:1990, *Cartes imprimées – Partie 2: Méthodes d'essai*
Amendement 1 (1992)

CEI 60454-3-1:1998, *Rubans adhésifs sensibles à la pression à usages électriques – Partie 3: Spécifications pour matériaux particuliers – Feuille 1: Rubans en PVC avec un adhésif sensible à la pression*
Amendement 1 (2001)

CEI 60664-1:2007, *Coordination de l'isolement des matériels dans les systèmes (réseaux) à basse tension – Partie 1: Principes, exigences et essais*