

INTERNATIONAL STANDARD

IEC 60464-2

2001

AMENDMENT 1
2006-01

Amendment 1

Varnishes used for electrical insulation –

**Part 2:
Methods of test**

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Международная Электротехническая Комиссия

PRICE CODE

C

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FOREWORD

This amendment has been prepared by IEC technical committee 15: Electrical insulating materials.

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

FDIS	Report on voting
15/253/FDIS	15/280/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 maintenance result 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- withdrawn,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.

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2 Normative references

Insert, on page 11, the following new references:

ISO 760:1978, *Determination of water – Karl Fischer Method (General method)*

ISO 11890-1:2000, *Paints and varnishes – Determination of volatile organic component (VOC) content – Part 1: Difference method*

ISO 11890-2:2000, *Paints and varnishes – Determination of volatile organic component (VOC) content – Part 2: Gas chromatographic method*

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Add, after subclause 5.8, the following new subclause 5.9:

5.9 pH of water or emulsion based varnish (Type W or Type E)

5.9.1 Equipment

The following equipment shall be used:

- laboratory pH meter and associated glassware;
- buffer solutions corresponding to the extremes of the specified pH range of the varnish within $\pm 0,5$;

- thermometer;
- demineralized water.

5.9.2 Procedure

The pH meter shall be used in accordance with the manufacturer's instructions. All pH measurements shall be made with material maintained at $23\text{ °C} \pm 2\text{ K}$.

Calibrate the pH meter at the pH values of the buffer solutions. The electrodes and glassware shall be washed in demineralized water between measurements. A repeated measurement on each solution shall agree within 0,1.

Thoroughly wash the glass electrode and immerse to the depth specified by the manufacturer in the varnish maintained at $23\text{ °C} \pm 2\text{ K}$ to determine the pH. A repeated measurement shall agree within 0,1.

5.9.3 Result

The result is the mean of the final pair of measurements.

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6.5 Electrical properties

Add, on page 35, the following new subclauses:

6.6 Flash rusting of steel by water or emulsion based varnish (Type W or Type E)

Steel sheet panels according to 6.1.1 and coated in accordance with 6.1.3, shall be examined for any evidence of rusting or discoloration of the steel surface, immediately after the curing/drying process. Rusting shall be reported as "present" or "absent".

6.7 Volatile organic compound content of water or emulsion based varnish (Type W or Type E)

The methods described in ISO 11890-1 and ISO 11890-2 should be followed, depending on whether the content is greater or less than 15 %.

6.8 Water content of water or emulsion based varnish (Type W or Type E)

The method described in ISO 760 should be used.

ISBN 2-8318-8455-1



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ICS 17.220.99; 29.035.01

Typeset and printed by the IEC Central Office
GENEVA, SWITZERLAND