
**Paints and varnishes — Electro-
deposition coatings —**

**Part 9:
Stoving loss**

*Peintures et vernis — Peintures d'électrodéposition —
Partie 9: Perte par d'étuvage*



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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

A list of all parts in the ISO 22553 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The stoving loss of an electro-deposition coating is not an absolute parameter but instead depends on the temperature used during testing and the test duration. As a result, relative values alone and not the true values for the stoving loss are obtained when using this method.

The relative mass loss factor, the relative reaction loss factor, and the relative total stoving loss factor can be calculated relative to the coated and vented, pre-dried and stoved test panel. The calculation is specified in [Annex A](#).

Paints and varnishes — Electro-deposition coatings —

Part 9: Stoving loss

1 Scope

This document specifies a method for determining the volatile-matter content of electro-deposition coatings (e-coats) during stoving (stoving loss) used for automotive industries and other general industrial applications, e.g. chiller units, consumer products, radiators, aerospace, agriculture.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 1514, *Paints and varnishes — Standard panels for testing*

ISO 4618, *Paints and varnishes — Terms and definitions*

ISO 22553-1, *Paints and varnishes — Electro-deposition coatings — Part 1: Vocabulary*

ISO 23321, *Solvents for paints and varnishes — Demineralized water for industrial applications — Specification and test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 and ISO 22553-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Principle

The non-volatile matter is determined after stoving of the electro-deposition coating and the stoving loss is calculated from this.

5 Apparatus and materials

Typical laboratory apparatus, together with the following: