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Paints and varnishes — Electro-deposition coatings —

Part 3: Compatibility of electro-deposition coating materials with a reference oil

Peintures et vernis — Peintures d'électrodéposition — Partie 3: Compatibilité des peintures d'électrodéposition avec d'une huile référence

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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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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

In practice, surface-reactive substances often contaminate the electro-deposition coating material inside the tank. These contaminants could be materials that are used in downstream production processes, e.g. forming additives, corrosion protection oils and chain lubricants.

These surface-active substances can lead to surface defects in the e-coat and/or subsequent coats.

Test methods for the determination of the compatibility of electro-deposition coating materials with liquid, paste-like and solid foreign substances, which influence the properties of the electro-deposition coating, are described in ISO 22553-4.

Paints and varnishes — Electro-deposition coatings —

Part 3: Compatibility of electro-deposition coating materials with a reference oil

1 Scope

The document specifies a method for the determination of the compatibility of electro-deposition coating materials with a reference oil.

It is applicable to electro-deposition coatings 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 2808, *Paints and varnishes — Determination of film thickness*

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

ISO 13076, *Paints and varnishes — Lighting and procedure for visual assessments of coatings*

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, ISO 22553-1 and the following 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/

3.1
surface active agent
surfactant
substance that affects the interfacial or surface tension markedly, when present in very low concentrations

[SOURCE: ISO 2080:2008, 3.187]