Paints and varnishes — Evaluation of degradation of coatings —
Designation of quantity and size of defects, and of intensity of uniform changes in appearance —

Part 5:
Assessment of degree of flaking

Peintures et vernis — Évaluation de la dégradation des revêtements —
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO’s adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 35, Paints and varnishes, Subcommittee SC 9, General test methods for paints and varnishes.

This third edition cancels and replaces the second edition (ISO 4628-5:2003), which has been technically revised with the following changes:

a) a normative reference to ISO 13076 for illumination for the assessment has been added.

ISO 4628 consists of the following parts, under the general title Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance:

— Part 1: General introduction and designation system
— Part 2: Assessment of degree of blistering
— Part 3: Assessment of degree of rusting
— Part 4: Assessment of degree of cracking
— Part 5: Assessment of degree of flaking
— Part 6: Assessment of degree of chalking by tape method
— Part 7: Assessment of degree of chalking by velvet method
— Part 8: Assessment of degree of delamination and corrosion around a scribe or other artificial defect
— Part 10: Assessment of degree of filiform corrosion
Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance —

Part 5:
Assessment of degree of flaking

1 Scope
This part of ISO 4628 specifies a method for assessing the degree of flaking of coatings by comparison with pictorial standards.

ISO 4628-1 defines the system used for designating the quantity and size of defects and the intensity of changes in appearance of coatings and outlines the general principles of the system. This system is intended to be used, in particular, for defects caused by ageing and weathering, and for uniform changes such as colour changes, for example yellowing.

2 Normative references
The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

3 Terms and definitions
For the purposes of this document, the following terms and definitions apply.

3.1 degree of flaking
rating characterizing flaked areas in a coating in terms of quantity, size, and depth

4 Assessment
Assess the quantity of flaking by reference to Table 1 and using as examples Figure 1 or Figure 2, depending on the type of flaking.

NOTE Figure 1 shows flaking without preferential direction and Figure 2 shows flaking in a preferential direction due to anisotropy of the substrate.