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ISO 19252

Plastics — Determination of scratch properties

Plastiques — Détermination du comportement à la rayure

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Foreword

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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 2, *Mechanical behaviour*.

This second edition cancels and replaces the first edition (ISO 19252:2008), which has been technically revised.

The main changes are as follows:

— the Scope has been updated to specify materials suitable for use with the test method defined in this document;

— the list of normative references (Clause 2) has been updated;

— the terms and definitions clause (Clause 3) has been updated;

— in 6.1, permission to use flat sample has been added.

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Plastics — Determination of scratch properties

1 Scope

This document specifies a method for determining the scratch properties of plastics under defined conditions.

The method defined in this document is used to investigate the behaviour of specified types of specimens under the scratch conditions defined and for classifying the type of scratch of specimens within the limitations inherent in the test conditions. It can also be used to determine comparative data for different types of material by means of a so-called scratch map in which the types of scratch behaviour for each set of test conditions of test load and test speed are determined using the basic method of constant-load testing, and also by means of the so-called critical normal load determined using an alternative method of linearly increasing load testing.

The method is suitable for use with the following range of materials.

— thermoplastic moulding, extrusion and casting materials, including filled and reinforced compounds in addition to unfilled types;

— thermosetting moulding materials, including filled and reinforced compounds;

— thermosetting sheets, rigid thermoplastic moulding and extrusion materials, including filled and reinforced compounds in addition to unfilled types.

The method specifies the preferred dimensions for the test specimen and the preferred scratch-tip geometry.

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 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 294-1, *Plastics — Injection moulding of test specimens of thermoplastic materials — Part 1: General principles, and moulding of multipurpose and bar test specimens*

ISO 10724-1, *Plastics — Injection moulding of test specimens of thermosetting powder moulding compounds (PMCs) — Part 1: General principles and moulding of multipurpose test specimens*

ISO 20753, *Plastics — Test specimens*

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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 https://www.electropedia.org/

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