BS EN ISO 4629-1:2016

BSI Standards Publication

Binders for paints and varnishes — Determination of hydroxyl value

Part 1: Titrimetric method without using a catalyst (ISO 4629-1:2016)

bsi.

National foreword

This British Standard is the UK implementation of EN ISO 4629-1:2016. It supersedes BS EN ISO 4629:1998 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee STI/3, Paints, media and related products.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

Binders for paints and varnishes - Determination of hydroxyl value - Part 1: Titrimetric method without using a catalyst (ISO 4629-1:2016)

Liants pour peintures et vernis - Détermination de l'indice d'hydroxyle - Partie 1: Méthode titrimétrique sans catalyseur (ISO 4629-1:2016)

Bindemittel für Beschichtungsstoffe - Bestimmung der Hydroxylzahl - Teil 1: Titrimetrisches Verfahren ohne Katalysator (ISO 4629-1:2016)

This European Standard was approved by CEN on 19 May 2016.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 4629-1:2016) has been prepared by Technical Committee ISO/TC 35 “Paints and varnishes” in collaboration with Technical Committee CEN/TC 139 “Paints and varnishes” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2016, and conflicting national standards shall be withdrawn at the latest by December 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 4629:1998.

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Endorsement notice

The text of ISO 4629-1:2016 has been approved by CEN as EN ISO 4629-1:2016 without any modification.

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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).

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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 10, *Test methods for binders for paints and varnishes*.

This first edition of ISO 4629-1 cancels and replaces ISO 4629:1996, which has been technically revised with the following changes:

a) the standard has been numbered as ISO 4629-1;

b) the standard has been editorially revised and the normative references have been updated;

c) the concentration of the phenolphthalein-indicator solution has been changed.

ISO 4629 consists of the following parts, under the general title *Binders for paints and varnishes — Determination of hydroxyl value*:

— *Part 1: Titrimetric method without using a catalyst*

— *Part 2: Titrimetric method using a catalyst*

INTERNATIONAL STANDARD ISO 4629-1:2016(E)

Binders for paints and varnishes — Determination of hydroxyl value —

Part 1: Titrimetric method without using a catalyst

1 Scope

This part of ISO 4629 specifies a titrimetric method for determining the free hydroxyl groups in binders and binder solutions for paints and varnishes. The hydroxyl groups may be present as polyhydric alcohols, partial esters, polyester end groups or hydroxylated fatty acids.

This method is not applicable to resins containing both hydroxyl groups and epoxy groups, because the latter will also be included in the result. Also the method is not applicable to cellulose nitrate or to phenolic resins.

NOTE 1 If, in the case of binder solutions, the hydroxyl value of the binder only is to be determined, the possibility that other constituents of the binder solution may contain hydroxyl groups has to be taken into account.

NOTE 2 A method for the determination of the hydroxyl value of epoxy resins is specified in ISO 7142[1].

2 Normative references

The following referenced 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 385, *Laboratory glassware — Burettes*

ISO 648, *Laboratory glassware — Single-volume pipettes*

ISO 2114:2000, *Plastics (polyester resins) and paints and varnishes (binders) — Determination of partial acid value and total acid value*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 15528, *Paints, varnishes and raw materials for paints and varnishes — Sampling*

3 Terms and definitions

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

3.1
hydroxyl value
number of milligrams of potassium hydroxide (KOH) corresponding to hydroxyl groups that have been acetylated under specified test conditions in 1 g of the product tested