SLOVENSKI STANDARD
SIST EN ISO 2554:2000

01-maj-2000

Polimerni materiali - Nenasiļ ene poliestrske smole - Doloļ anje hidroksilnega ġtevila (ISO 2554:1997)

Plastics - Unsaturated polyester resins - Determination of hydroxyl value (ISO 2554:1997)

Kunststoffe - Ungesättigte Polyesterharze - Bestimmung der Hydroxylzahl (ISO 2554:1997)

Plastiques - Résines de polyesters non saturés - Détermination de l'indice d'hydroxyde (ISO 2554:1997)

Ta slovenski standard je istoveten z: **EN ISO 2554:1998**

ICS:

83.080.10	Duromeri	Thermosetting materials

SIST EN ISO 2554:2000 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 2554

July 1998

ICS 83.080.10

Descriptors: see ISO document

English version

Plastics - Unsaturated polyester resins - Determination of hydroxyl value (ISO 2554:1997)

Plastiques - Résines de polyesters non saturés - Détermination de l'indice d'hydroxyle (ISO 2554:1997)

Kunststoffe - Ungesättigte Polyesterharze - Bestimmung der Hydroxylzahl (ISO 2554:1997)

This European Standard was approved by CEN on 12 June 1998.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of the International Standard from Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

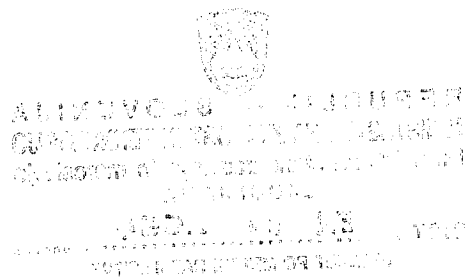
This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 1999, and conflicting national standards shall be withdrawn at the latest by January 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 2554:1997 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).



Annex ZA (normative)
Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

Publication	Year	Title	EN	Year
ISO 2114	1996	Plastics - Unsaturated polyester resins - Determination of partial acid value and total acid value	EN ISO 2114	1996
ISO 3696	1987	Water for analytical laboratory use - Specification and test method	EN ISO 3696	1995

INTERNATIONAL STANDARD

ISO 2554

Second edition
1997-03-01

Plastics — Unsaturated polyester resins — Determination of hydroxyl value

Plastiques — Résines de polyesters non saturés — Détermination de l'indice d'hydroxyle

Reference number
ISO 2554:1997(E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 2554 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 12, *Thermosetting materials*.

This second edition cancels and replaces the first edition (ISO 2554:1974), of which it constitutes a minor (editorial) revision.

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Plastics – Unsaturated polyester resins – Determination of hydroxyl value

1 Scope

This International Standard specifies a method for determining the hydroxyl value of unsaturated polyester resins.

In fact, this method determines the difference between the hydroxyl value and the acid value; it is therefore necessary to determine the total acid value separately, in order to calculate the hydroxyl value.

NOTE 1 The hydroxyl value of saturated polyester resins (for example, polyester resin used for the manufacture of polyurethanes and polymeric plasticizers) and of certain types of alkyd resins may also be determined by this method.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2114:1996, *Plastics — Unsaturated polyester resins — Determination of partial acid value and total acid value.*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods.*

3 Definitions

For the purposes of this International Standard, the following definitions apply:

3.1 hydroxyl value: The number of milligrams of potassium hydroxide necessary to neutralize the acetic acid which will combine, by acetylation, with 1 g of an unsaturated polyester resin.

3.2 acid value: The number of milligrams of potassium hydroxide required to neutralize 1 g of a test sample under the test conditions.

3.3 total acid value: The acid value corresponding to the neutralization of all carboxyl-terminated groups and free acids and free anhydrides of a polyester.

4 Principle

The hydroxyl groups in the resin are acetylated by reacting an ethyl acetate solution of the resin with acetic anhydride in the presence of toluene-4-sulfonic acid catalyst. The excess acetic anhydride is hydrolysed by a pyridine/water mixture and the resultant acetic acid is titrated with methanolic potassium hydroxide solution.