



SLOVENSKI STANDARD SIST EN ISO 4535:2000

01-december-2000

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Vitreous and porcelain enamels - Apparatus for determination of resistance to hot detergent solutions used for washing textiles (ISO 4535:1983)

Enamels - Gerät für die Bestimmung der Beständigkeit gegen heiße Waschmittellösungen für Textilien (ISO 4535:1983)

Emaux vitrifiés - Appareillage pour la détermination de la résistance aux solutions chaudes de détergent utilisées pour le lavage des textiles (ISO 4535:1983)

<https://standards.iteh.ai/catalog/standards/sist/7b68b2a8-514a-4f8a-a59c-aafc43583e38/sist-en-iso-4535-2000>

Ta slovenski standard je istoveten z: EN ISO 4535:1998

ICS:

25.220.50 Emajlne prevleke Enamels

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EUROPEAN STANDARD

EN ISO 4535

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 1998

ICS 25.220.50

Descriptors: see ISO document

English version

Vitreous and porcelain enamels - Apparatus for determination of
resistance to hot detergent solutions used for washing textiles
(ISO 4535:1983)

Emaux vitrifiés - Appareillage pour la détermination de la
résistance aux solutions chaudes de détergent utilisées
pour le lavage des textiles (ISO 4535:1983)

Emails - Gerät für die Bestimmung der Beständigkeit gegen
heiße Waschmittellösungen für Textilien (ISO 4535:1983)

This European Standard was approved by CEN on 30 October 1998.

CEN members are bound to comply with the CEN/GENELEC 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 107 "Metallic and other inorganic coatings" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 262 "Metallic and other inorganic coatings", the secretariat of which is held by BSI.

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 May 1999, and conflicting national standards shall be withdrawn at the latest by May 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 4535:1983 has been approved by CEN as a European Standard without any modification.

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REPUBLIKA SLOVENSKO
SLOVAK REPUBLIC
SLOVENSKÁ REPUBLIKA
SLOVAKIA

1999

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BYTICA, IDEALNÝ NOSTEM OBYTEĽNÝ

International Standard 4535

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Vitreous and porcelain enamels — Apparatus for determination of resistance to hot detergent solutions used for washing textiles

Émaux vitrifiés — Appareillage pour la détermination de la résistance aux solutions chaudes de détergent utilisées pour le lavage des textiles

First edition — 1983-05-15

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UDC 666.293 : 620.193.47

Ref. No. ISO 4535-1983 (E)

Descriptors : non-metallic coatings, porcelain enamels, vitreous enamels, test equipment, chemical resistance, detergents, washing, textiles.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4535 was developed by Technical Committee ISO/TC 107, *Metallic and other non-organic coatings*, and was circulated to the member bodies in February 1982.

It has been approved by the member bodies of the following countries:

Australia	Hungary	Romania
Czechoslovakia	India	South Africa, Rep. of
Egypt, Arab Rep. of	Italy	Spain
France	Netherlands	Sweden
Germany, F. R.	Poland	Switzerland

The member bodies of the following countries expressed disapproval of the document on technical grounds:

United Kingdom
USA

Vitreous and porcelain enamels — Apparatus for determination of resistance to hot detergent solutions used for washing textiles

1 Scope and field of application

This International Standard specifies requirements for the apparatus to be used for the determination of the resistance of flat surfaces of vitreous and porcelain enamels to attack by hot detergent solutions used for washing textiles.

2 Reference

ISO 48, *Vulcanized rubbers — Determination of hardness (Hardness between 30 and 85 IRHD)*.

3 General description

The apparatus (see figures 1 to 4) consists of a hexagonal vessel having a circular opening in each side. A specimen is pressed against each of these openings by means of gripping plates which are held in place by wing nuts, sealing rings being placed between the vessel and the specimens. A lid having four holes, for a paddle stirrer, two immersion heaters and a temperature controlling device, is screwed on to the vessel, a sealing ring being placed between the vessel and the lid. The paddle stirrer, immersion heaters and temperature controlling device are fixed such that their distance from the bottom of the vessel is 30 mm.

4 Requirements

4.1 Hexagonal vessel

The vessel (see figures 1 to 3) shall have four threaded bolts welded to each side for fastening the gripping plates, and six threaded bolts welded to the upper surface for fastening the lid. The vessel should preferably have an outlet for drainage.

4.2 Lid

The lid (see figure 4; shown also in figures 1 and 3) shall have a centrally placed support for receiving the paddle stirrer, and three further supports for receiving the immersion heaters and the temperature controlling device.

4.3 Gripping plates

Six gripping plates, of thickness 4 mm, and which can be fitted to the sides of the hexagonal vessel, are required.

4.4 Fasteners

Thirty wing nuts are required for fastening the gripping plates and the lid to the vessel.

4.5 Sealing rings

Six sealing rings, of external diameter 100 mm, internal diameter 80 mm and thickness 8 mm, are required for sealing the side openings.

An additional ring, of internal diameter 140 mm, and of thickness 3 mm, is required to serve as an intermediate layer between the lid and the vessel.

4.6 Paddle stirrer

The paddle stirrer shall have the dimensions shown in figure 3. It shall operate at a rotational frequency of $1\,350 \pm 50$ min⁻¹.

4.7 Immersion heaters

Two cylindrical immersion heaters, each of 600 W, are required.

4.8 Temperature controlling device

This shall be a contact thermometer with a temperature controlling device, accurate to ± 1 °C. The use of a temperature recording instrument is recommended.

5 Materials

5.1 The vessel (4.1), lid (4.2), gripping plates (4.3) and paddle stirrer (4.6) shall be made of the same austenitic stainless steel.

5.2 The cylindrical immersion heaters (4.7) shall be made of nickel-plated copper or of austenitic stainless steel.

5.3 The sealing rings (4.5) shall be made of a synthetic rubber of hardness 70 IRHD when determined in accordance with ISO 48. The material shall be resistant to alkaline solutions at 100 °C (chloroprene is suitable for example).

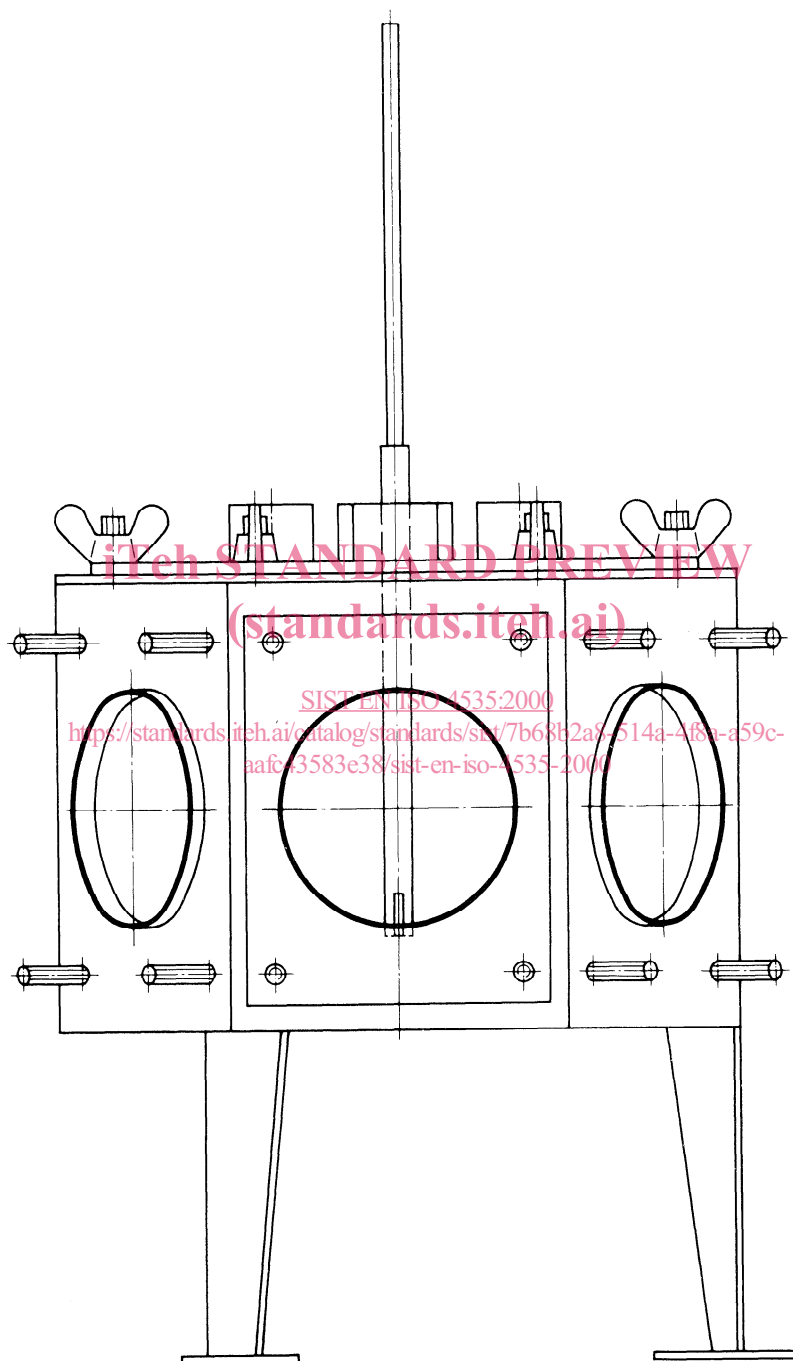


Figure 1 – Hexagonal vessel with lid, stirrer and gripping plate

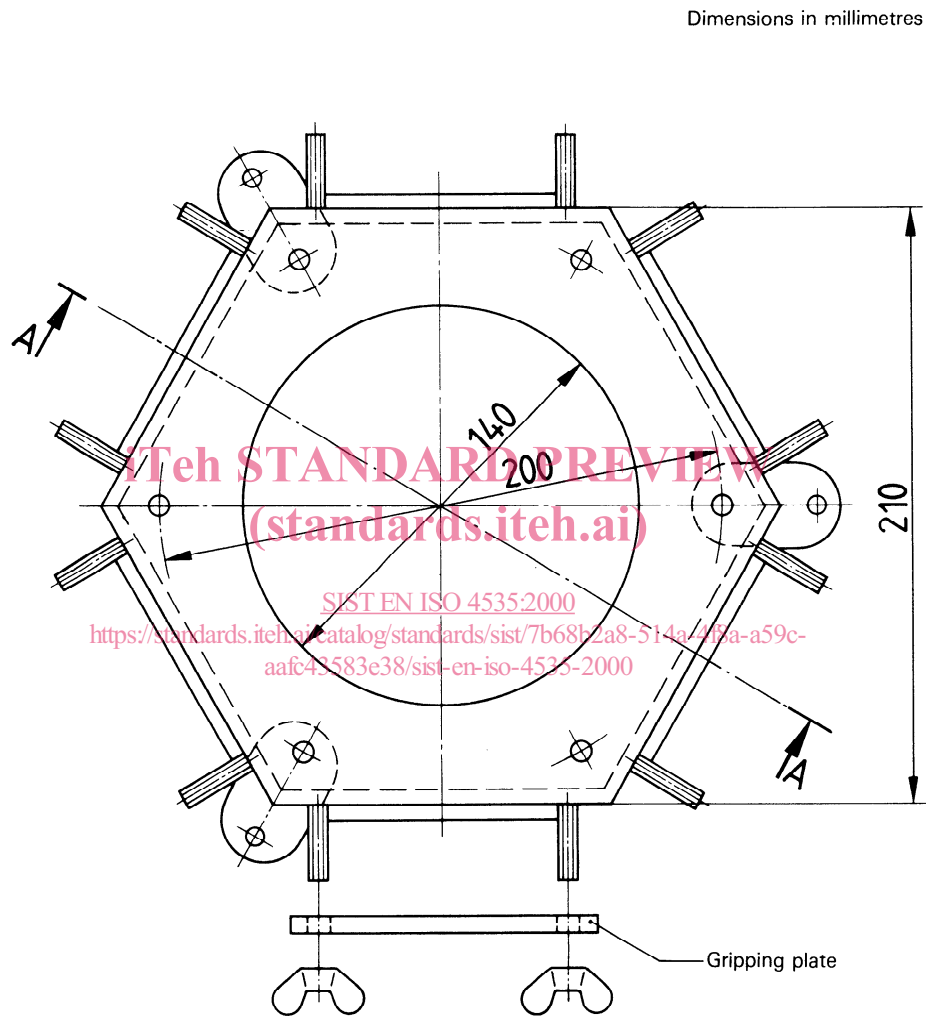


Figure 2 — Top view of hexagonal vessel without lid and paddle stirrer