

# SLOVENSKI STANDARD SIST EN ISO 845:1999

01-maj-1999

# DYb^Yb]'dc`]aYfb]'aUhYf]U]']b'[iaY'Ë'8c`cYjUb^Y'bUj]XYnbY'[cghchY'fHGC,().%,,Ł

Cellular plastics and rubbers - Determination of apparent (bulk) density (ISO 845:1988)

Schaumstoffe aus Kautschuk und Kunststoffen - Bestimmung der Rohdichte (ISO 845:1988)

# iTeh STANDARD PREVIEW

Caoutchoucs et plastiques alvéplaires. Détermination de la masse volumique apparente (ISO 845:1988)

SIST EN ISO 845:1999

Ta slovenski standard je istoveten z: Https://standards.iteh.ai/catalog/standards/sist/b79fa228-fr35-474b-9362-EN ISO 845:1995

<u>ICS:</u>

83.100 Penjeni polimeri

Cellular materials

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en



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#### **SIST EN ISO 845:1999**

### EUROPEAN STANDARD

### NORME EUROPÉENNE

## EUROPÄISCHE NORM

## **EN ISO 845**

May 1995

ICS 83.100

Descriptors:

rubber, plastics, rigid plastics, cellular plastics, tests, determination, bulk density

English version

# Cellular plastics and rubbers - Determination of apparent (bulk) density (ISO 845:1988)

Caoutchoucs et plastiques alvéolaines DARD PRESchaumstoffe aus Kautschuk und Kunststoffen -Détermination de la masse volumique apparente DARD PREBestimmung der Rohdichte (ISO 845:1988) (ISO 845:1988)

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# CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

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

**e** 1995

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#### Foreword

The text of the International Standard from ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) has been taken over as a European Standard by the Technical Committee CEN/TC 249 "Plastics".

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of an identical text or by endorsement, at the latest by November 1995, and conflicting national standards shall be withdrawn at the latest by November 1995.

According to CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, 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 845:1988 has been approved by CEN as a European Standard without any modification.

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

https://standards.iteh.ai/catalog/standards/sist/b79fa228-fc35-474b-9362-This European Standard should not be used for cellular plastics and rubber materials for use as thermal insulation in building applications. Determination of apparent density of these products is covered by prEN 1602 - Thermal insulating products for building applications - Determination of apparent density.

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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 | <u>Year</u>               | Title   | EN          | <u>Year</u> |
|-------------|---------------------------|---|-------------|-------------|
| ISO 1923    | 1981                      | Cellular plastics and rubbers - Determination | EN ISO 1923 | 1995        |
| · ·         | $\int_{-\infty}^{\infty}$ | of linear dimensions                          |             |             |

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# INTERNATIONAL STANDARD



INTERNATIONAL ORGANIZATION FOR STANDARDIZATION ORGANISATION INTERNATIONALE DE NORMALISATION MEЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

# Cellular plastics and rubbers — Determination of apparent (bulk) density

Caoutchoucs et plastiques alvéolaires - Détermination de la masse volumique apparente

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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.

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. They are approved in accordance with ISO procedures requiring at VIEW least 75 % approval by the member bodies voting.

International Standard ISO 845 was prepared by Technical Committee ISO/TC 61, Plastics.

#### SIST EN ISO 845:1999

This second edition cancels and replaces the first edition (ISO 845:d1977) sof which it fc35-474b-9362constitutes a technical revision. 00f9db34b490/sist-en-iso-845-1999

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# Cellular plastics and rubbers — Determination of apparent (bulk) density

#### 1 Scope

This International Standard specifies a method for determining the apparent overall density and the apparent core density of rigid cellular plastics, and the bulk density of semi-rigid and flexible cellular plastics and rubbers.

If the material to be tested includes skins formed during moulding, the apparent overall density or the apparent core density, or both, may be determined. If the material does not have skins formed during moulding, the term overall density is not applicable.

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#### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International SO 845:1976 standards. At the time of publication, the seditions and cateddards/sist/b79fa228-fc35-474b-9362-were valid. All standards are subject to revision) and parties to ist-en-15184 Dimensions agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 291 : 1977, Plastics – Standard atmospheres for conditioning and testing.

ISO 1382 : 1982, Rubber – Vocabulary.

ISO 1923 : 1981, Cellular plastics and rubbers — Determination of linear dimensions.

#### **3** Definitions

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

**3.1** apparent overall density (of a cellular material): The mass per unit volume of a sample, including all skins formed during moulding.

**3.2** apparent core density (of a cellular material) : The mass per unit volume of a sample after all skins formed during moulding have been removed.

#### 4 Apparatus

Ordinary laboratory apparatus and

**4.1** Balance, capable of determining the mass of a test piece to an accuracy of 0.5 %.

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Each test piece shall be of a shape such that its volume can be easily calculated. It shall be cut without deforming the original cell structure of the material.

The size of a test piece should preferably be as large as possible, commensurate with the apparatus available and with the shape of the original material. For rigid materials, the total surface area of a test piece shall be at least 100 cm<sup>2</sup>. For semi-rigid and flexible materials, the volume of a test piece shall be at least 100 cm<sup>3</sup>.

For rigid materials, when the apparent overall density is being determined using test pieces cut from a larger sample, the ratio of the area of skin formed during moulding to total volume shall be the same for the test pieces as for the sample.

#### 5.2 Number of test pieces

A minimum of three test pieces shall be tested for flexible materials and a minimum of five shall be tested for rigid materials.

The sample may be a manufactured object whose mass and volume can be measured accurately. Its total mass and total volume may be used to determine the sample density (see 8.3).

**<sup>3.3</sup>** bulk density<sup>1)</sup> (of a cellular material): The mass per unit volume of a material measured under specified conditions and including both permeable and impermeable voids present in the material.

<sup>1)</sup> See ISO 1382.