61

INTERNATIONAL STANDARD

ISO 2897-1

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Plastics — Impact-resistant polystyrene (SB) moulding and extrusion materials —

Part 1: Designation

Plastiques — Polystyrène (SB) résistant au choc pour moulage et extrusion —

Partie 1: Désignation

Reference number
ISO 2897-1:1990(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 2897-1 was prepared by Technical Committee ISO/TC 61, *Plastics*.

Together with ISO 2897-2, this International Standard cancels and replaces ISO 2897:1976.

ISO 2897 consists of the following parts, under the general title *Plastics — Impact-resistant polystyrene (SB) moulding and extrusion materials*:

— *Part 1: Designation*

— *Part 2: Determination of properties*

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Plastics — Impact-resistant polystyrene (SB) moulding and extrusion materials —

Part 1:
Designation

1 Scope

1.1 This part of ISO 2897 establishes a system of designation for impact-resistant polystyrene (SB) thermoplastic materials, which may be used as the basis for specifications.

1.2 The types of impact-resistant polystyrene plastic are differentiated from each other by a classification system based on appropriate levels of the designatory properties

a) Vicat softening temperature,

b) melt flow rate,

c) impact strength and

d) flexural modulus,

and on information about intended application, method of processing, important properties, additives and colour.

1.3 This designation system is applicable to all impact-resistant polystyrene plastics with a two-phase polymer system comprised of a continuous phase, consisting of polystyrene and/or a copolymer of styrene with an alkyl-substituted styrene, and a dispersed elastomeric phase based on butadiene.

It applies to materials ready for normal use, unmodified and modified by colorants, additives, etc.

This part of ISO 2897 does not apply to expandable materials.

1.4 It is not intended to imply that materials having the same designation give necessarily the same performance. This part of ISO 2897 does not provide engineering data, performance data or data on processing conditions which may be required to specify a material for a particular application or method of processing.

If such additional properties are required, they shall be determined in accordance with the test methods specified in ISO 2897-2, if suitable.

1.5 In order to specify a thermoplastic material for a particular application, additional requirements may be specified in Data Block 5 (see clause 3).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 2897. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 2897 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 178:1975, *Plastics — Determination of flexural properties of rigid plastics.*

ISO 180:1982, *Plastics — Determination of Izod impact strength of rigid materials.*

ISO 293:1986, *Plastics — Compression moulding test specimens of thermoplastic materials.*

ISO 306:1987, *Plastics — Thermoplastic materials — Determination of Vicat softening temperature.*

ISO 1043-1:1987, *Plastics — Symbols — Part 1: Basic polymers and their special characteristics.*

ISO 1133:1981, *Plastics — Determination of the melt flow rate of thermoplastics.*

ISO 2557-1:1989, *Plastics — Amorphous thermoplastics — Preparation of test specimens with a specified maximum reversion — Part 1: Bars.*

ISO 2897-2:1981, *Plastics — Impact-resistant polystyrenes — Part 2: Determination of properties.*

ISO 8328:1989, *Plastics — Amorphous thermoplastic moulding materials — Determination of maximum reversion.*

3 Designation system

The designation system for thermoplastics is based on the standardized pattern given in figure 1.

The designation consists of an optional Description Block, reading Thermoplastics, and an Identity Block comprising the International Standard number and an Individual Item Block. For unambiguous designation, the Individual Item Block is subdivided into 4 data blocks comprising the following information:

Data Block 1: Identification of the plastic by its symbol (SB) (see 3.1).

Data Block 2: Position 1: Intended application or method of processing (see 3.2).

Positions 2 to 4: Important properties, additives and supplementary information (see 3.2).

Data Block 3: Designatory properties (see 3.3).

Data Block 4: Fillers or reinforcing materials and the nominal content thereof (not included in this part of ISO 2897).

For the purpose of specifications, a fifth data block may be added containing additional information. The kind of information and the code-letters used are not the subject of this part of ISO 2897.

The first character of the Individual Item Block shall be a hyphen.

The four data blocks shall be separated from each other by a comma.

If a data block is not used, this shall be indicated by doubling the separation sign, i.e. by two commas (,,).

3.1 Data Block 1

In this data block, after the hyphen, impact-resistant polystyrene is identified by its symbol (SB) in accordance with ISO 1043-1.

<table>
<tr><td colspan="6">Designation</td></tr>
<tr><td rowspan="3">Description Block (optional)</td><td colspan="5">Identity Block</td></tr>
<tr><td rowspan="2">International Standard Block</td><td colspan="4">Individual Item Block</td></tr>
<tr><td>Data Block 1</td><td>Data Block 2</td><td>Data Block 3</td><td>Data Block 4</td><td>Data Block 5</td></tr>
</table>

Figure 1 — Data block designation system