BS EN ISO 294-3:2020



BSI Standards Publication

Plastics – Injection moulding of test specimens of thermoplastic materials

Part 3: Small plates

bsi.

National foreword

This British Standard is the UK implementation of EN ISO 294-3:2020. It is identical to ISO 294-3:2020. It supersedes BS EN ISO 294-3:2003, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/82, Thermoplastic materials.

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

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Published by BSI Standards Limited 2020

ISBN 978 0 539 02173 8

ICS 83.080.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2020.

Amendments/corrigenda issued since publication

Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 294-3

July 2020

ICS 83.080.20

Supersedes EN ISO 294-3:2003

English Version

Plastics - Injection moulding of test specimens of thermoplastic materials - Part 3: Small plates (ISO 294-3:2020)

Plastiques - Moulage par injection des éprouvettes de matériaux thermoplastiques - Partie 3: Plaques de petites dimensions (ISO 294-3:2020)

Kunststoffe - Spritzgießen von Probekörpern aus Thermoplasten - Teil 3: Kleine Platten (ISO 294-3:2020)

This European Standard was approved by CEN on 27 June 2020.

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European foreword

This document (EN ISO 294-3:2020) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 “Plastics” the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by January 2021, and conflicting national standards shall be withdrawn at the latest by January 2021.

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

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Endorsement notice

The text of ISO 294-3:2020 has been approved by CEN as EN ISO 294-3:2020 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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 294-3:2002), which has been technically revised. It also incorporates the Amendment ISO 294-3:2002/Amd 1:2006.

The main changes compared to the previous edition are as follows:

— the requirements in Clause 4 have been clarified;

— the position of h_G in Figure 2 has been corrected.

A list of all parts in the ISO 294 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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INTERNATIONAL STANDARD **ISO 294-3:2020(E)**

Plastics — Injection moulding of test specimens of thermoplastic materials —

Part 3: Small plates

1 Scope

This document specifies two two-cavity moulds, the type D11 and D12 ISO moulds, for the injection moulding of small plates measuring 60 mm × 60 mm with a preferred thickness of 1 mm (type D11) or 2 mm (type D12), which can be used for a variety of tests. The moulds can additionally be fitted with inserts for studying the effects of weld lines on the mechanical properties (see Annex A).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 294-1:2017, *Plastics — Injection moulding of test specimens of thermoplastic materials — Part 1: General principles, and moulding of multipurpose and bar test specimens*

ISO 294-4, *Plastics — Injection moulding of test specimens of thermoplastic materials — Part 4: Determination of moulding shrinkage*

ISO 6603-1, *Plastics — Determination of puncture impact behaviour of rigid plastics — Part 1: Non-instrumented impact testing*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 294-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Apparatus

4.1 Type D11 and D12 ISO moulds

Type D11 and D12 ISO moulds are two-cavity moulds (see Figure 1) intended for the preparation of plates measuring 60 mm × 60 mm. The plates produced using these moulds shall have the dimensions shown in Figure 2 and given in Table 1.

The main constructional details of type D11 and D12 ISO moulds shall be as shown in Figure 1 and Figure 2 and shall meet the following requirements.

a) The sprue diameter on the nozzle side shall be at least 4 mm according to ISO 294-1:2017, 4.1.1.4, item a).

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