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**Plastics — Injection moulding of  
test specimens of thermoplastic  
materials —**

**Part 3:  
Small plates**

*Plastiques — Moulage par injection des éprouvettes de matériaux  
thermoplastiques —*

*Partie 3: Plaques de petites dimensions*



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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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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](http://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](http://www.iso.org/members.html).

# 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).