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**Plastics — Poly(methyl methacrylate)
(PMMA) moulding and extrusion
materials —**

**Part 2:
Preparation of test specimens and
determination of properties**

*Plastiques — Poly(méthacrylate de méthyle) (PMMA) pour moulage et
extrusion —*

Partie 2: Préparation des éprouvettes et détermination des propriétés



Reference number
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Contents

	Page
1 Scope	1
2 Conformance	1
3 Normative references	1
4 Preparation of test specimens	2
5 Conditioning	4
6 Determination of properties	5

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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.

Attention is drawn to the possibility that some of the elements of this part of ISO 8257 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 8257-2 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*.

This second edition cancels and replaces the first edition (ISO 8257-2:1990), which has been technically revised.

ISO 8257 consists of the following parts, under the general title *Plastics — Poly(methyl methacrylate) (PMMA) moulding and extrusion materials*:

- *Part 1: Designation system and basis for specifications*
- *Part 2: Preparation of test specimens and determination of properties*

In this corrected version of ISO 8257-2:2001, Table 3 has been amended to remove the meaningless "less than" (<) signs in the dimensions of the specimens for Charpy unnotched impact strength, Charpy notched impact strength and temperature of deflection under load (sixth, seventh and eighth properties in table).

Plastics — Poly(methyl methacrylate) (PMMA) moulding and extrusion materials —

Part 2:

Preparation of test specimens and determination of properties

1 Scope

1.1 This part of ISO 8257 specifies procedures for moulding test specimens of PMMA materials in a specified state, and methods for measuring their properties. Any property listed in this part of ISO 8257 and referred to in combination with ISO 8257-1 shall be determined by the method referred to in this part of ISO 8257.

1.2 No values are quoted for these properties. Those required for the designation of PMMA materials for moulding and extrusion are given in ISO 8257-1. Other properties shall be determined by the appropriate methods referred to in this part of ISO 8257.

1.3 The values determined in accordance with this part of ISO 8257 will not necessarily be identical to those obtained using specimens of different dimensions and/or prepared by different procedures. They may also be influenced by colorants and other additives. The values obtained for the properties of a moulding depend on the moulding compound, the shape of test specimen, the test method and the state of anisotropy. The last-mentioned depends on the gating and the moulding conditions, for example temperature, pressure or injection rate. Any subsequent treatment must also be considered, for example conditioning or annealing.

1.4 The thermal history and the internal stresses of the specimens may strongly influence thermal and mechanical properties and resistance to environmental stress cracking, but exert less effect on the electrical properties, which mainly depend on the chemical composition of the moulding compound.

2 Conformance

In clause 3, the year of publication of each normative reference has been specifically stated. In order to be able to claim conformity with this part of ISO 8257, it is essential that the user use only those editions given, and not earlier or more recent editions.

3 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 8257. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 62:1999, *Plastics — Determination of water absorption*

ISO 75-2:1993, *Plastics — Determination of temperature of deflection under load — Part 2: Plastics and ebonite*

ISO 175:1999, *Plastics — Methods of test for the determination of the effects of immersion in liquid chemicals*

ISO 178:1993, *Plastics — Determination of flexural properties*

ISO 179:1993, *Plastics — Determination of Charpy impact strength*