
**Plastics — Poly(methyl methacrylate)
sheets — Types, dimensions and
characteristics —**

**Part 3:
Continuous cast sheets**

*Plastiques — Plaques en poly(méthacrylate de méthyle) — Types,
dimensions et caractéristiques —*

Partie 3: Plaques coulées continues



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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 7823-3 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

This second edition cancels and replaces the first edition (ISO 7823-3:2003), which has been technically revised.

ISO 7823 consists of the following parts, under the general title *Plastics — Poly(methyl methacrylate) sheets — Types, dimensions and characteristics*:

- *Part 1: Cast sheets*
- *Part 2: Extruded sheets*
- *Part 3: Continuous cast sheets*

Plastics — Poly(methyl methacrylate) sheets — Types, dimensions and characteristics —

Part 3: Continuous cast sheets

1 Scope

This part of ISO 7823 specifies requirements for non-modified flat poly(methyl methacrylate) (PMMA) continuous cast sheets for general-purpose use. The sheets may be colourless or coloured, and may be transparent, translucent or opaque.

The thickness range of the sheets covered by this part of ISO 7823 is 1 mm to 10 mm.

2 Normative references

The following referenced documents are indispensable for the application 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 62:1999, *Plastics — Determination of water absorption*

ISO 75-2:2004, *Plastics — Determination of temperature of deflection under load — Part 2: Plastics and ebonite*

ISO 178, *Plastics — Determination of flexural properties*

ISO 179-1, *Plastics — Determination of Charpy impact properties — Part 1: Non-instrumented impact test*

ISO 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 306:2004, *Plastics — Thermoplastics materials — Determination of Vicat softening temperature (VST)*

ISO 489:1999, *Plastics — Determination of refractive index*

ISO 527-2, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics*

ISO 877, *Plastics — Methods of exposure to direct weathering, to weathering using glass-filtered daylight, and to intensified weathering by daylight using Fresnel mirrors*

ISO 1183-1:2004, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pycnometer method and titration method*

ISO 1183-2, *Plastics — Methods for determining the density of non-cellular plastics — Part 2: Density gradient column method*

ISO 2039-2, *Plastics — Determination of hardness — Part 2: Rockwell hardness*

ISO 2818, *Plastics — Preparation of test specimens by machining*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 4582, *Plastics — Determination of changes in colour and variations in properties after exposure to daylight under glass, natural weathering or laboratory light sources*

ISO 4892-2:2006, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps*

ISO 4892-4, *Plastics — Methods of exposure to laboratory light sources — Part 4: Open-flame carbon-arc lamps*

ISO 11359-2, *Plastics — Thermomechanical analysis (TMA) — Part 2: Determination of coefficient of linear thermal expansion and glass transition temperature*

ISO 13468-1, *Plastics — Determination of the total luminous transmittance of transparent materials — Part 1: Single-beam instrument*

ISO 13468-2, *Plastics — Determination of the total luminous transmittance of transparent materials — Part 2: Double-beam instrument*

ISO 14782, *Plastics — Determination of haze for transparent materials*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 non-modified cast PMMA sheets
sheets based on homopolymers of MMA, or copolymers of MMA with acrylic or methacrylic monomers, produced by bulk polymerization in the presence of suitable initiators

3.2 flat PMMA sheets
sheets with two plane, substantially parallel surfaces

4 Composition

The amounts of plasticizing ingredients (materials that do not undergo chemical reaction to become a part of the polymer), other monomers and crosslinking agents (materials that produce the links between the chains of polymers) present shall be such that the basic properties are not changed from the values given in Table 3. These amounts are in most cases less than a mass fraction of 5 %.

Other additives, e.g. colorants, UV absorbers and pigments, may be included to give specific properties.

National environmental legislation and regulations shall be followed regarding additives.

5 General requirements

5.1 Protective coverings

Unless otherwise agreed upon by the interested parties, the surfaces of the sheet, as delivered, shall be protected by suitable materials, for example kraft paper secured with a water-soluble or pressure-sensitive adhesive, or a polyethylene film, which are readily removable without causing surface contamination or damage.