



International
Standard

ISO 17855-2

**Plastics — Polyethylene (PE)
moulding and extrusion
materials —**

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

*Plastiques — Matériaux à base de polyéthylène (PE) pour
moulage et extrusion —*

*Partie 2: Préparation des éprouvettes et détermination des
propriétés*

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Contents		Page
Foreword.....		iv
1	Scope.....	1
2	Normative references.....	1
3	Terms and definitions.....	3
4	Preparation of test specimens.....	3
4.1	General.....	3
4.2	Treatment of the material before moulding.....	3
4.3	Injection moulding.....	3
4.4	Compression moulding.....	4
5	Conditioning of test specimens.....	4
6	Determination of properties.....	5
Bibliography.....		9

Foreword

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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 document 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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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC9, *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 second edition cancels and replaces the first edition (ISO 17855-2:2016), which has been technically revised.

The main changes are as follows:

- ISO 16241, ISO 18488, ISO 18489 and ISO 22088-2 have been integrated to [Clause 2](#);
- [Table 1](#) Conditions for injection moulding of test specimens have been changed;
- [Table 2](#) Conditions for compression moulding of test specimens have been changed;
- properties from ISO 16241, ISO 18488, ISO 18489 and ISO 22088-2 have been integrated in [Table 4](#);
- Annex A (informative) has been deleted.

A list of all parts in the ISO 17855 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.

Plastics — Polyethylene (PE) moulding and extrusion materials —

Part 2: Preparation of test specimens and determination of properties

1 Scope

This document specifies the methods of preparation of test specimens and the test methods for determining the properties of polyethylene (PE) moulding and extrusion materials. It gives requirements for handling test material and for conditioning both the test material before moulding and the specimens before testing.

This document specifies the procedures and conditions for the preparation of test specimens and procedures for measuring properties of the materials from which these specimens are made. Properties and test methods that are suitable and essential to characterize PE moulding and extrusion materials are listed.

The properties in this document have been selected from the general test methods in ISO 10350-1. Other test methods in wide use for or of particular significance to PE moulding and extrusion materials are also included in this document, as are the designatory properties specified in ISO 17855-1. Properties of slow crack growth, etc. are specified in documents of polyethylene (PE) materials for piping systems.

The methods of preparation and conditioning, the specimen dimensions and the test procedures specified herein are used to obtain reproducible and comparable test results. Values determined will not necessarily be identical to those obtained using specimens of different dimensions or prepared using different procedures.

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 62, *Plastics — Determination of water absorption*

ISO 75-2, *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 179-2, *Plastics — Determination of Charpy impact properties — Part 2: Instrumented impact test*

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

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

ISO 294-3, *Plastics — Injection moulding of test specimens of thermoplastic materials — Part 3: Small plates*

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