

**Plastid. Polüetüleenist (PE) vormimis- ja
ekstrusioonimaterjalid. Osa 1:
Tähistussüsteem ja alus tehniliste andmete
jaoks**

Plastics - Polyethylene (PE) moulding and extrusion
materials - Part 1: Designation system and basis for
specifications (ISO 1872-1:1993)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 1872-1:2000 sisaldab Euroopa standardi EN ISO 1872-1:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 1872-1:2000 consists of the English text of the European standard EN ISO 1872-1:1999.</p> <p>This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: Standardi ISO 1872 käesolev osa kehtestab tähistussüsteemi polüetüleentermoplastidele. Seda süsteemi võib kasutada alusena tehniliste andmete jaoks.</p>	<p>Scope:</p>
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ICS 83.080.20

Võtmesõnad: designation, extrusion materials, moulding materials, plastics, polyethylene, thermoplastic resins

English version

Plastics

Polyethylene (PE) moulding and extrusion materials

**Part 1: Designation system and basis for specifications
(ISO 1872-1 : 1993)**

Plastiques – Polyéthylène (PE) pour
moulage et extrusion – Partie 1:
Système de désignation et base de
spécification (ISO 1872-1 : 1993)

Kunststoffe – Polyethylen (PE)-Form-
massen – Teil 1: Bezeichnungs-
system und Basis für Spezifikationen
(ISO 1872-1 : 1993)

This European Standard was approved by CEN on 1999-04-16.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 1872-1 : 1993 Plastics – Polyethylene (PE) moulding and extrusion materials – Part 1: Designation system and basis for specifications,

which was prepared by ISO/TC 61 'Plastics' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 249 'Plastics', the Secretariat of which is held by IBN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by November 1999 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 1872-1 : 1993 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

1 Scope

1.1 This part of ISO 1872 establishes a system of designation for polyethylene thermoplastic material, which may be used as the basis for specifications.

1.2 The types of polyethylene plastic are differentiated from each other by a classification system based on appropriate levels of the designatory properties

a) density

b) melt mass-flow rate

and on information about the intended application and/or method of processing, important properties, additives, colorants, fillers and reinforcing materials.

1.3 This part of ISO 1872 is applicable to all polyethylene homopolymers and to copolymers of ethylene having a content of other 1-olefinic monomers of less than 50 % (*m/m*) and a content of non-olefinic monomers with functional groups up to a maximum of 3 % (*m/m*).

It applies to materials ready for normal use in the form of powder, granules or pellets, unmodified or modified by colorants, additives, fillers, etc.

This part of ISO 1872 does not apply to masterbatches or to EPM rubber.

1.4 It is not intended to imply that materials having the same designation give necessarily the same performance. This part of ISO 1872 does not provide engineering data, performance data or data on processing conditions which may be required to specify a material for a particular application and/or method of processing.

If such additional properties are required, they shall be determined in accordance with the test methods specified in part 2 of this International Standard, if suitable.

1.5 In order to specify a thermoplastic material for a particular application or to ensure reproducible processing, additional requirements may be given in data block 5 (see clause 3, introductory paragraph).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 1872. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 1872 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1043-1:1987, *Plastics — Symbols — Part 1: Basic polymers and their special characteristics*.

ISO 1133:1991, *Plastics — Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics*.

ISO 1183:1987, *Plastics — Methods for determining the density and relative density of non-cellular plastics*.

ISO 1872-2:1989, *Plastics — Polyethylene (PE) and ethylene copolymer thermoplastics — Part 2: Preparation of test specimens and determination of properties*.

3 Designation and specification system

The designation and specification system for thermoplastics is based on the following standardized pattern:

Designation						
Description block (optional)	Identity block					
	International Standard number block	Individual-item block				
		Data block 1	Data block 2	Data block 3	Data block 4	Data block 5

The designation consists of an optional description block, reading "Thermoplastics", and an identity block comprising the International Standard number and an individual-item block. For unambiguous designation, the individual-item block is subdivided into five data blocks comprising the following information:

- Data block 1: Identification of the plastic by its symbol PE in accordance with ISO 1043-1 (see 3.1).
- Data block 2: Position 1: Intended application or method of processing (see 3.2).
Positions 2 to 8: Important properties, additives and supplementary information (see 3.2).
- Data block 3: Designatory properties (see 3.3).
- Data block 4: Fillers or reinforcing materials and their nominal content (see 3.4).
- Data block 5: For the purpose of specifications, a fifth data block may be added containing additional information.

The first character of the individual-item block shall be a hyphen. The data blocks shall be separated from each other by commas.

If a data block is not used, this shall be indicated by doubling the separation sign, i.e. by two commas (,,).

3.1 Data block 1

In this data block, after the hyphen, polyethylene plastics are identified by the symbol "PE", in accordance with ISO 1043-1.