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Standards

Irish Standard  
I.S. EN ISO 1874-1:2010

# Plastics - Polyamide (PA) moulding and extrusion materials - Part 1: Designation system and basis for specification (ISO 1874-1:2010)

## I.S. EN ISO 1874-1:2010

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*This document replaces:*  
EN ISO 1874-1:2000

*This document is based on:*  
EN ISO 1874-1:2010

*Published:*  
26 November, 2010

This document was published under the authority of the NSAI and comes into effect on: 26 November, 2010

ICS number:  
83.080.20

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English Version

Plastics - Polyamide (PA) moulding and extrusion materials -  
Part 1: Designation system and basis for specification (ISO  
1874-1:2010)

Plastiques - Matériaux polyamides (PA) pour moulage et  
extrusion - Partie 1: Système de désignation et base de  
spécification (ISO 1874-1:2010)

Kunststoffe - Polyamid (PA)-Formmassen für das  
Spritzgießen und die Extrusion - Teil 1:  
Bezeichnungssystem und Basis für Spezifikationen (ISO  
1874-1:2010)

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## **Foreword**

This document (EN ISO 1874-1:2010) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by NBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2011, and conflicting national standards shall be withdrawn at the latest by May 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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I.S. EN ISO 1874-1:2010  
**INTERNATIONAL  
STANDARD**

**ISO  
1874-1**

Third edition  
2010-11-15

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**Plastics — Polyamide (PA) moulding and  
extrusion materials —**

Part 1:  
**Designation system and basis for  
specification**

*Plastiques — Matériaux polyamides (PA) pour moulage et extrusion —  
Partie 1: Système de désignation et base de spécification*



Reference number  
ISO 1874-1:2010(E)

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Published in Switzerland



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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 1874-1 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*.

This third edition cancels and replaces the second edition (ISO 1874-1:1992), which has been technically revised.

ISO 1874 consists of the following parts, under the general title *Plastics — Polyamide (PA) moulding and extrusion materials*:

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

# Plastics — Polyamide (PA) moulding and extrusion materials —

## Part 1: Designation system and basis for specification

### 1 Scope

This part of ISO 1874 establishes a system of designation for polyamide (PA) thermoplastic materials, which may be used as the basis for specifications.

It covers polyamide homopolymers for moulding and extrusion based on PA 6, PA 66, PA 69, PA 610, PA 612, PA 11, PA 12, PA MXD6, PA 46, PA 1212, PA 4T, PA 6T and PA 9T and copolyamides of various compositions for moulding and extrusion.

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

- a) viscosity number,
- b) tensile modulus of elasticity and
- c) presence of nucleating agent,

and on information about chemical structure, intended application, method of processing, important properties, additives, colour, fillers and reinforcing materials.

The designation system is applicable to all polyamide homopolymers and copolymers. It applies to materials ready for normal use, unmodified and modified by colorants, additives, fillers, reinforcing materials, polymer modifiers, etc.

This part of ISO 1874 does not apply to monomer casting-type polyamides of PA 6 and PA 12.

It is not intended to imply that materials having the same designation give necessarily the same performance. This part of ISO 1874 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 ISO 1874-2, if suitable.

In order to specify a thermoplastic material for a particular application or reproducible processing, additional requirements may be given in data block 5 (see 3.1 and 3.6).

### 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 307, *Plastics — Polyamides — Determination of viscosity number*

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