



**NSAI**  
Standards

Irish Standard  
I.S. EN ISO 19062-1:2015

Plastics - Acrylonitrile-butadiene-styrene  
(ABS) moulding and extrusion materials -  
Part 1: Designation system and basis for  
specifications (ISO/DIS 19062-1:2014)

## I.S. EN ISO 19062-1:2015

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN ISO 19062-1:2015 is the adopted Irish version of the European Document EN ISO 19062-1:2015, Plastics - Acrylonitrile-butadiene-styrene (ABS) moulding and extrusion materials - Part 1: Designation system and basis for specifications (ISO/DIS 19062-1:2014)

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EUROPEAN STANDARD

EN ISO 19062-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2015

ICS 83.080.20

Supersedes EN ISO 2580-1:2002

English Version

## Plastics - Acrylonitrile-butadiene-styrene (ABS) moulding and extrusion materials - Part 1: Designation system and basis for specifications (ISO 19062-1:2015)

Plastiques - Acrylonitrile-butadiène-styrène (ABS) pour moulage et extrusion - Partie 1 : Système de désignation et base de spécification (ISO 19062-1:2015)

Kunststoffe - Acrylnitril-Butadien-Styrol (ABS)-Formmassen - Teil 1: Bezeichnungssystem und Basis für Spezifikationen (ISO 19062-1:2015)

This European Standard was approved by CEN on 26 September 2015.

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This European Standard exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

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**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

**EN ISO 19062-1:2015 (E)**

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## **European foreword**

This document (EN ISO 19062-1:2015) 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of an identical text or by endorsement, at the latest by June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

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.

This document supersedes EN ISO 2580-1:2002.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### **Endorsement notice**

The text of ISO 19062-1:2015 has been approved by CEN as EN ISO 19062-1:2015 without any modification.

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**INTERNATIONAL  
STANDARD**

**ISO  
19062-1**

First edition  
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**Plastics — Acrylonitrile-butadiene-  
styrene (ABS) moulding and  
extrusion materials —**

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

*Plastiques — Acrylonitrile-butadiène-styrène (ABS) pour moulage  
et extrusion —*

*Partie 1: Système de désignation et base de spécifications*



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## ISO 19062-1:2015(E)

### 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.

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 documents 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](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*.

This first edition of ISO 19062-1 cancels and replaces ISO 2580-1:2002, which has been technically revised to introduce a new designation system.

The revised designation system is published under a new ISO number, as many existing documents refer to ISO 2580-1. If the existing ISO 2580-1 would be replaced by the new designation system, these documents would refer to the incorrect designation system.

In order to give users time to switch from ISO 2580-1 to ISO 19062-1, any designation system according to ISO 2580-1 is to be phased out in 5 to 10 years. During this period, ISO 2580-2 will effectively be Part 2 of this International Standard.

ISO 19062 consists of the following parts, under the general title *Plastics — Acrylonitrile-butadiene-styrene (ABS) moulding and extrusion materials*:

— *Part 1: Designation system and basis for specifications*

## **Introduction**

ISO 2580-1 is complex and does not fit with daily practice anymore. In practice, ISO 1043 (all parts) and ISO 11469 are, in combination, “improperly” being used as a designation system for, e.g. marking. The aim of this International Standard is to simplify the data block system and to connect more to ISO 1043 (all parts) and ISO 11469, where the first two blocks are used for generic identification and marking of products.



# Plastics — Acrylonitrile-butadiene-styrene (ABS) moulding and extrusion materials —

## Part 1: Designation system and basis for specifications

### 1 Scope

This part of ISO 19062 establishes a system of designation for acrylonitrile-butadiene-styrene (ABS) moulding and extrusion materials, which may be used as the basis for specifications.

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

- a) Vicat softening temperature;
- b) melt mass-flow rate;
- c) Charpy notched impact strength;
- d) tensile modulus;

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

This part of ISO 19062 is applicable to all acrylonitrile-butadiene-styrene materials consisting of a continuous phase based mainly on copolymers of styrene (and/or alkyl-substituted styrene) and acrylonitrile and a dispersed elastomeric phase based mainly on polybutadiene, plus other components, in such quantities as specified in the text.

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

This part of ISO 19062 does not apply to materials

- a) with a Charpy notched impact strength of less than three kilojoules per square metre,
- b) containing less than 50 % by mass of butadiene in the elastomer of the elastomeric phase, and
- c) containing less than 15 % by mass of acrylonitrile in the continuous phase.

It is not intended to imply that materials having the same designation give necessarily the same performance. This part of ISO 19062 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 will be determined in accordance with the test methods specified in ISO 2580-2, if suitable.

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 [3.1](#)).

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