



NSAI
Standards

Irish Standard
I.S. EN ISO 1043-4:2021

Plastics - Symbols and abbreviated terms - Part 4: Flame retardants (ISO 1043- 4:2021)

I.S. EN ISO 1043-4:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN ISO 1043-4:2021 is the adopted Irish version of the European Document EN ISO 1043-4:2021, Plastics - Symbols and abbreviated terms - Part 4: Flame retardants (ISO 1043-4:2021)

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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EUROPEAN STANDARD

EN ISO 1043-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2021

ICS 83.040.30; 83.080.01

Supersedes EN ISO 1043-4:1999, EN ISO 1043-4:1999/A1:2016

English Version

Plastics - Symbols and abbreviated terms - Part 4: Flame retardants (ISO 1043-4:2021)

Plastiques - Symboles et termes abrégés - Partie 4:
Ignifuges (ISO 1043-4:2021)

Kunststoffe - Kennbuchstaben und Kurzzeichen - Teil
4: Flammenschutzmittel (ISO 1043-4:2021)

This European Standard was approved by CEN on 24 July 2021.

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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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN ISO 1043-4:2021) 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 February 2022, and conflicting national standards shall be withdrawn at the latest by February 2022.

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

This document supersedes EN ISO 1043-4:1999, EN ISO 1043-4:1999/A1:2016.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN websites.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 1043-4:2021 has been approved by CEN as EN ISO 1043-4:2021 without any modification.

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INTERNATIONAL STANDARD

**ISO
1043-4**

Second edition
2021-07

Plastics — Symbols and abbreviated terms —

Part 4: Flame retardants

*Plastiques — Symboles et termes abrégés —
Partie 4: Ignifuges*



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ISO 1043-4:2021(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).

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 1, *Terminology*, 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 1043-4:1998), which has been technically revised. It also incorporates the Amendment ISO 1043-4:1998/Amd 1:2016.

The main changes compared to the previous edition are as follows:

— code numbers 26, 27, 53, 54, and 55 have been added.

A list of all parts in the ISO 1043 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 — Symbols and abbreviated terms —

Part 4: Flame retardants

1 Scope

This document provides uniform symbols for flame retardants added to plastics materials.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

flame retardant

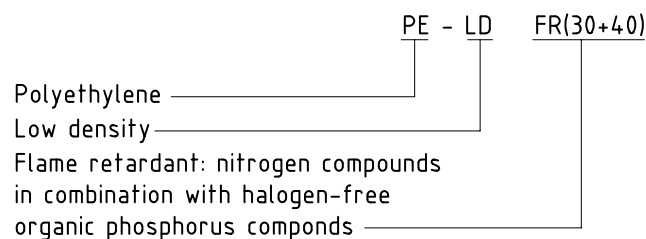
substance that markedly retards the propagation of a flame

Note 1 to entry: Included are flame retardants that are incorporated in prepolymers.

4 Application of symbols

The symbols are written with the abbreviated term “FR”, in capital letters, followed, without a space, by a two-digit code number enclosed in parentheses and selected, as appropriate, from the list given in [Clause 5](#). Only flame retardants exceeding a mass fraction of 1 % have to be identified. These symbols are used in addition to the symbols for a plastics material derived from ISO 1043-1, ISO 1043-2 and ISO 1043-3.

EXAMPLE 1:



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