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**Rubber compounding ingredients — Abbreviated terms**

*Ingrédients de mélange du caoutchouc — Termes abrégés*

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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.

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~~ISO draws attention to the possibility that ~~some of the elements~~implementation of this document may ~~be involve~~ the ~~subject~~use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at [www.iso.org/patents](http://www.iso.org/patents). 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)).~~

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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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*.

This sixth edition cancels and replaces the fifth edition (ISO 6472:2017), which has been technically revised.

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

- ~~new~~ ingredients and their abbreviations have been added;
- di-tert-butyl peroxide (DTBP) has been removed from ~~Table 1~~Table 1 due to its high risk of ignition in rubber applications.

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](http://www.iso.org/members.html).

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## Rubber compounding ingredients — Abbreviated terms

### 1 Scope

This document establishes unambiguous abbreviated terms for commonly used rubber compounding ingredients of known, specific chemical composition.

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

No terms and definitions are listed in this document.

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

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

### 4 Notation conventions used in this document

4.1 The abbreviated terms are derived from common usage in industry and commerce rather than from any systematic nomenclature. The list is not intended to conflict with, but rather to act as a supplement to, existing trade names and trademarks.

4.2 When abbreviated terms first appear in a text, they shall be enclosed in parentheses and shall be preceded by the chemical name written in full.

4.3 The list does not purport to be comprehensive, and abbreviated terms for other compounding ingredients will be added in future revisions of this document.

4.4 International Union of Pure and Applied Chemistry (IUPAC) nomenclature is provided where this is available, in addition to the commonly used chemical name or names. In some instances, alternative commonly used chemical names are given where they are recognized. For those materials whose chemical formula cannot be specified, such as reaction products or polymerized products, the identification of IUPAC is “not possible”. Chemical Abstracts Service Registry Number (CAS RN) is also provided unless “not available”.

4.5 Unlike ISO 1043-3, which uses the letter F for phosphates, this document uses the letter P, because P is used universally to designate phosphates and other phosphorous compounds and the letter F is used universally to designate fluorine and its compounds; this usage would thus minimize the confusion among those using this document.

### 5 Accelerators, co-agents and vulcanizing agents

See Table 1.

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Number	Abbreviated term	Common chemical name, IUPAC name and CAS RN (where available)
39	DTGCB	1,3-di- <i>o</i> -tolylguanidinium bis[benzene-1,2-diolato(2-)- <i>O,O'</i> ] borate IUPAC: 1,3-di- <i>o</i> -tolylguanidinium bis[benzene-1,2-diolato(2-)- <i>O,O'</i> ] borate CAS RN: 16971-82-7
40	DTTU	1,3-di- <i>o</i> -tolylthiourea IUPAC: 1,3-di- <i>o</i> -tolyl-2-thiourea CAS RN: 137-97-3
41	EBPB	ethyl 3,3-bis( <i>tert</i> -butylperoxy)-butyrate IUPAC: ethyl 3,3-bis( <i>tert</i> -butyldioxy) butyrate CAS RN: 55794-20-2
42	FeDMC	iron (III) <i>N,N</i> -dimethyldithiocarbamate IUPAC: iron (III) <i>N,N</i> -dimethyldithiocarbamate CAS RN: 14484-64-1
43	EFA	ethyl chloride, formaldehyde and ammonia reaction product IUPAC: not possible CAS RN: 63512-71-0
44	EPTD	<i>N,N'</i> -diethyl- <i>N,N'</i> -diphenylthiuram disulfide IUPAC: <i>N,N'</i> -diethyl- <i>N,N'</i> -diphenylthiuram disulfide CAS RN: 41365-24-6
45	ETU	ethylene thiourea IUPAC: imidazolidine-2-thione CAS RN: 96-45-7
46	HMD	hexamethylenediamine IUPAC: Hexane-1,6-diylidiamine CAS RN: 124-09-4
47	HMDC	hexamethylenediamine carbamate IUPAC: <i>N</i> -carboxy-1,6-hexanediamine CAS RN: 143-06-6
48	HMMA	<i>N,N'</i> -hexamethylene-bis-methacrylamide IUPAC: <i>N,N'</i> -hexamethylenedimethacrylamide CAS RN: 16069-15-1
49	HMT	hexamethylenetetramine IUPAC: 1,3,5,7-tetraazatricyclo[3.3.1.1 <sup>3,7</sup> ]decane CAS RN: 100-97-0
50	MBOCA	4,4'-methylene-bis( <i>o</i> -chloroaniline) IUPAC: 2,2'-dichloro-4,4'-methylenedianiline CAS RN: 101-14-4
51	pMBPO	di-(4-methylbenzoyl)peroxide IUPAC: bis(4-methylbenzoyl)peroxide CAS RN: 895-85-2
52	MBPP	4-methyl-2,2-bis( <i>tert</i> -butylperoxy)-pentane IUPAC: di- <i>tert</i> -butyl 1,3-dimethylbutylidene diperoxide CAS RN: 36799-28-7
53	MBS	<i>N</i> -oxydiethylenebenzothiazole-2-sulfenamide; 2-morpholinothiobenzothiazole



