



Designation: D 3853 – 9703^{ε1}

Standard Terminology Relating to Rubber and Rubber Latices—Abbreviations for Chemicals Used in Compounding¹

This standard is issued under the fixed designation D 3853; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

^{ε1} NOTE—Section 5 was editorially updated in February 2003.

¹ This terminology is under the jurisdiction of ASTM Committee D-11 on Rubber and is the direct responsibility of Subcommittee D11.08 on Terminology. Current edition approved Nov. 10, 1997; 2003. Published April 1998; February 2003. Originally published as D 3853—79; approved in 1979. Last previous edition approved in 1997 as D 3853 – 96a7.

1. Scope

1.1 This terminology is a compilation of abbreviations for accelerators, vulcanizing agents, activators, anti-degradants, plasticizers, softeners, processing aids and aids, blowing agents, retarders, isocyanates, peroxides, and antireversion agents used in the compounding of rubber products. Abbreviations for rubbers are listed in Practice D 1418 and a numbering system for various grades of carbon blacks is described in Classification D 1765.

2. Referenced Documents

2.1 ASTM Standards:

D 1418 Practice for Rubber and Rubber Latices—Nomenclature²

D 1600 Terminology for Abbreviated Terms Relating to Plastics³

D 1566 Terminology Relating to Rubber²

D 1765 Classification System for Carbon Blacks Used in Rubber Products²

2.2 ISO Standard:⁴

ISO 6472 Rubber Compounding Ingredients—Abbreviations

3. Significance and Use

3.1 These abbreviations are to be used in technical writing where the full chemical name of the substance is used initially, followed by the abbreviation found in this terminology. Later references to this substance may then use the abbreviation only.

4. Form and Style

4.1 Although generally accepted references^{4,5,6} for naming chemicals provide the basis for these abbreviations, common usage has dictated the particular choice for the abbreviations set forth in this terminology.

4.2 Conventions used in this terminology are:

4.2.1 The symbol B will be used for butyl in the case of accelerators and vulcanizing agents and for butylidene in the case of bisphenol materials (see 4.2.6.2).

4.2.2 The symbol Bz will be used for benzyl groups.

4.2.3 When possible, a number will be used to denote long chain hydrocarbons, that is, 5 for penta, 88 for dioctyl, etc. If the length of the hydrocarbon chain is ten or higher, the number shall be placed in parenthesis, that is (12) for dodecyl, etc. The letter “i” shall be used to denote an iso structure.

4.2.4 The chemical symbol for metallic components will be used whenever possible. This will usually occur at the beginning of the abbreviation.

² Annual Book of ASTM Standards, Vol 09.01.

³ Annual Book of ASTM Standards, Vol 08.01.

⁴ Available from American National Standards Institute, 11 West 42nd Institute (ANSI), 25 W. 43rd St., 13th 4th Floor, New York, NY 10036.

⁵ A Guide to IUPAC Nomenclature of Organic Chemistry, Compounds, Sections A, B, and C, 3rd ed., Butterworth, London, 1971; CRC Press, Boca Raton, FL, 1993.

⁶ Fletcher, J. H., Derner, O. C., and Fox,

⁶ Fox, R. B., eds., Nomenclature of Organic Compounds, Advances in Chemistry Series No. 126, Am. Chem. Soc., American Chemical Society, Washington, DC, 1974; 2001.