Designation: D8178 – 18

Standard Terminology Relating to Recovered Carbon Black (rCB)[1]

This standard is issued under the fixed designation D8178; 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.

1. Scope

1.1 This terminology covers a compilation of definitions of technical terms used in the recovered carbon black industry. Terms that are generally understood or adequately defined in other readily available sources are not included.

1.2 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D1508 Test Method for Carbon Black, Pelleted Fines and Attrition

D1509 Test Methods for Carbon Black—Heating Loss

3. Terminology

3.1 *Definitions:*

aciniform, *adj*—shaped like a cluster of grapes.

Discussion—The original spheroidal primary particles of carbon black fused into aggregates of colloidal dimension forming an aciniform morphology. Recovered carbon blacks retain these aciniform aggregate structures.

carbon black, furnace, *n*—a type of carbon black produced by the decomposition reaction of primarily liquid hydrocarbons when injected into a high-velocity stream of combustion gases under controlled conditions.

Discussion—The primary type of carbon black used in production of rubber compound, especially used in tires and other black rubber articles.

carbon black, thermal, *n*—a type of carbon black produced under controlled conditions by the thermal decomposition of gaseous hydrocarbons in the absence of air or flames.

Discussion—This carbon black lacks significant aciniform morphology and as such is used primarily in non-tire applications. Use of non-tire rubber feedstock may result in the recovery of this carbon black type.

fines, *n*—that portion of pelletized recovered carbon black that passes through a specified sieve under standard conditions.

Discussion—See Test Method D1508.

heating loss, *n*—mass loss, in percent, when recovered carbon black is heated at 125°C for 1 h; the heating loss is primarily attributed to moisture content.

Discussion—See Test Method D1509.

recovered carbon black pellet, *n*—a relatively large agglomerate mass that has been densified in spheroidal form to facilitate handling and processing.

APPENDIX

(Nonmandatory Information)

X1. EXISTING STANDARDS RECOGNIZED BY COMMITTEE D36

X1.1 The following is a list of existing standards that are currently available for use in the industry. These standards are maintained by ASTM Committee D24 on Carbon Black;

[1] This terminology is under the jurisdiction of ASTM Committee D36 on Recovered Carbon Black (rCB) and is the direct responsibility of Subcommittee D36.30 on Nomenclature.

Current edition approved Nov. 1, 2018. Published January 2019. DOI: 10.1520/D8178-18.

[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.