



Designation: D 1566 – 02a

Standard Terminology Relating to Rubber¹

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1. Scope

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

1.2 Definitions for terms that have been established by other bodies recognized as expert in the field will, after ballot approval, be inserted in this terminology without change, and the source of the definition will be identified. Exceptions to this rule will be where the meaning of the term as used in the rubber industry is different from the common meaning of the term.

1.3 Users of this standard who require mathematical expressions for the time and temperature dependent physical properties of some terms found in this standard should refer to D 5992 Standard Guide for Dynamic Testing of Rubber and Rubber-Like Materials Using Vibratory Methods and other standards listed under referenced documents. Selected terms from D 5992 may be found in the Annex

1.4 Although this terminology standard avoids the inclusion of jargon and archaic terms as much as possible, some terms have been retained for historical reasons.

2. Referenced Documents

2.1 ASTM Standards:

- D 412 Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension²
- D 925 Test Method for Rubber Property—Staining of Surfaces (Contact, Migration, and Diffusion)²
- D 1076 Specification for Rubber—Concentrated, Ammonia Preserved, Creamed, and Centrifuged Natural Latex²
- D 1148 Test Method for Rubber Deterioration—Heat and Ultraviolet Light Discoloration of Light-Colored Surfaces²
- D 1415 Test Method for Rubber Property—International Hardness²
- D 1646 Test Methods for Rubbers—Viscosity, Stress Relaxation, and Pre-Vulcanization Characteristics (Mooney Viscometer)²

¹ This terminology is under the jurisdiction of ASTM Committee D11 on Rubber and is the direct responsibility of Subcommittee D11.08 on Terminology.

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The boldface designations refer to the original source of the definition and the ASTM technical committee having jurisdiction.

² *Annual Book of ASTM Standards*, Vol 09.01.

D 3053 Terminology Relating to Carbon Black²

D 5992 Standard Guide for Dynamic Testing of Vulcanized Rubber and Rubber-Like Materials Using Vibratory Methods²

E 6 Terminology Relating to Methods of Mechanical Testing³

E 20 Practice for Particle Size Analysis of particulate Substances in the Range of 0.2 to 75 μm by Optimal Microscopy⁴

E 28 Test Methods for Softening Point of Resins Derived from Naval Stores by Ring and Ball Apparatus⁵

E 111 Test Method for Young's Modulus, Tangent Modulus, and Chord Modulus³

E 126 Test Method for Inspection and Verification of Hydrometers⁶

2.2 ISO Standards:

1382-82 Rubber-Vocabulary Second Edition (Addendum 16-18-1998).⁷

3. Terminology

abrasion, *n*—the surface loss of a material due to frictional forces.

abrasion resistance index, *n*—a measure of the abrasion resistance of a rubber relative to that of a standard rubber under the same specified conditions, expressed as a percentage.

accelerated life test, *n*—a test method designed to approximate in a short time, the deteriorating effect of normal long-term service conditions.

accelerator (rubber), *n*—a compounding material used in small amounts with a vulcanizing agent to increase the speed of vulcanization.

DISCUSSION—Properties of a vulcanizate are changed by the type or amount of accelerator used.

accelerator, delayed action, *n*—an accelerator that, in conjunction with other curing agent(s), produces, at vulcanizing temperatures, a period of no significant cross-linking, followed by a period of rapid cross-link formation.

³ *Annual Book of ASTM Standards*, Vol 03.01.

⁴ Discontinued—see 1993 *Annual Book of ASTM Standards*, Vol 14.02.

⁵ *Annual Book of ASTM Standards*, Vol 06.03.

⁶ *Annual Book of ASTM Standards*, Vol 14.03.

⁷ Available from the International Organization for Standardization, Case Postale 56, Geneva 20, Switzerland, CH-1211.