



Designation: D6477 – 23

Standard Terminology Relating to Tire Cord, Bead Wire, Hose Reinforcing Wire, and Fabrics¹

This standard is issued under the fixed designation D6477; 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 is the compilation of all definitions developed by Subcommittee D13.19 on Tire Cords and Fabrics.

1.2 The terminology, mostly definitions, is unique to the tire cord fabric industry. Meanings of the same terms used outside the tire cord fabric industry can be found in other compilations or in dictionaries of general usage.

1.3 In addition to being a specialized dictionary, this terminology is also a tool for managing the Subcommittee's terminology. This includes finding, eliminating, and preventing redundancies, that is, where two or more terms relating to the same concept are defined in different words.

1.4 *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

D123 Terminology Relating to Textiles

D885/D885M Test Methods for Tire Cords, Tire Cord Fabrics, and Industrial Filament Yarns Made from Manufactured Organic-Base Fibers (Withdrawn 2023)³

D1871 Test Method for Adhesion Between Tire Bead Wire and Rubber (Withdrawn 2023)³

D2229 Test Method for Adhesion Between Steel Tire Cords and Rubber (Withdrawn 2023)³

D2692/D2692M Test Method for Air Permeability of Tire Fabrics, Tire Cord Fabrics, Tire Cord, and Yarns

¹ This terminology is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.19 on Industrial Fibers and Metallic Reinforcements.

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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.

³ The last approved version of this historical standard is referenced on www.astm.org.

D2969 Test Methods for Steel Tire Cords (Withdrawn 2023)³

D2970/D2970M Test Methods for Testing Tire Cords, Tire Cord Fabrics, and Industrial Yarns Made From Glass Filaments (Withdrawn 2023)³

D4776/D4776M Test Method for Adhesion of Tire Cords and Other Reinforcing Cords to Rubber Compounds by H-Test Procedure

D4974/D4974M Test Method for Hot Air Thermal Shrinkage of Yarn and Cord Using a Thermal Shrinkage Oven

D4975 Test Methods for Single-Filament Tire Bead Wire Made from Steel (Withdrawn 2023)³

D5591 Test Method for Thermal Shrinkage Force of Yarn and Cord With a Thermal Shrinkage Force Tester

D6320/D6320M Test Methods for Single Filament Hose Reinforcing Wire Made from Steel (Withdrawn 2023)³

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D6611 Test Method for Wet and Dry Yarn-on-Yarn Abrasion Resistance

D7269/D7269M Test Methods for Tensile Testing of Aramid Yarns

D7812 Test Method for Tensile Testing of Aramid Paper

D8054/D8054M Test Methods for Tensile Testing of Para-Aramid Flat Yarns

3. Terminology

abrasion, *n*—the wearing away of any part of a material by rubbing against another surface. **D6611**

adhesion, *n*—*in tire fabrics*, the force required to separate a textile material from rubber or other elastomer by a definite prescribed method. **D1871, D2229, D4776/D4776M**

adhesion, *n*—the property denoting the ability of a material to resist delamination or separation into two or more layers. **D6477**

adhesive treated tire cord, *n*—a tire cord whose adhesion to rubber or other elastomer has been improved by the application of a dip followed by rapid drying and (normally) additional heat treatment. **D5591**

air wicking, *n*—*in tires*, the passage of air longitudinally along or through yarns in a fabric that has been encased and cured