INTERNATIONAL

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Standard Specification for ~~A~~P195/75R14 Radial Standard Reference Test Tire[1]

This standard is issued under the fixed designation E1136; 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

~~1.1This specification covers the general requirements for a radial-ply standard reference test tire. The tire covered by this specification is primarily for use as a reference for tire traction performance evaluations, but may also be used for other evaluations, such as pavement roughness, noise, or other tests that require a reference tire.~~

~~1.2This specification also provides a standard design of certified construction, accurate dimensions, and specifies a means of storage.~~

~~1.3The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.~~

1.1 This specification covers the general requirements for the P195/75R14 radial standard reference test tire. The tire covered by this specification is primarily for use as a reference tire for braking traction, snow traction, and wear performance evaluations, but may also be used for other evaluations, such as pavement roughness, noise, or other tests that require a reference tire.

1.1.1 A P225/60R16 97S (Specification F2493) tire is another standard reference test tire that is also used for these purposes. Specification F2493 was originally published 2006 and continues to be used.

1.2 This specification provides a rim code diameter of 14, standard tire design and construction, standard dimensions, and specifies the conditions of storage.

1.3 The values stated in SI units are to be regarded as the standard. The values given in parentheses are mathematical conversions to inch-pound units that are provided for information only and are not considered standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D412 Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension

D1054 Test Method for Rubber Property—Resilience Using a Goodyear-Healey Rebound Pendulum

D1765 Classification System for Carbon Blacks Used in Rubber Products

D2240 Test Method for Rubber Property—Durometer Hardness

D3182 Practice for Rubber~~Materials, Equipment, and Procedures for Mixing Standard Compounds and Preparing Standard Vulcanized Sheets~~ —Materials, Equipment, and Procedures for Mixing Standard Compounds and Preparing Standard Vulcanized Sheets

D7121 Test Method for Rubber Property—Resilience Using Schob Type Rebound Pendulum

E867 Terminology Relating to Vehicle-Pavement Systems

F538 Terminology Relating to the Characteristics and Performance of Tires

F2493 Specification for P225/60R16 97S Radial Standard Reference Test Tire

3. Terminology

3.1 *Definitions:*

3.1.1 For definitions of terms used in this specification, refer to Terminology F538.

3.1.2 *all-season tread*, *n*—tread design providing dry, wet, and snow traction performance for an optimized balance for

[1] This specification is under the jurisdiction of ASTM Committee F09 on Tires and is the direct responsibility of Subcommittee F09.20 on Vehicular Testing.

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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.

year-round performance and which may meet the Rubber Manufacturers Association (RMA) definition for an M&S, M+S, M/S, MS, etc. marked tire (see RMA "Snow Tire Definitions for Passenger and Light Truck (LT) Tires"[3]). **F538**

3.1.3 *pavement characteristic*, *n*—physical feature or property of a pavement surface such as type, roughness, texture, and skid resistance. **E867**

3.1.4 *pitch*, *n*—unit of tread pattern elements used in various combinations to obtain optimum noise levels. **F538**

3.1.5 *standard reference test tire, SRTT*, *n*—tire that is used as a control tire or surface monitoring tire (for example, Specification E1136 and F2493 tires). **F538**

4. Design and Construction

~~3.1The standard reference test tire shall be size P195/75R14, current technology All Season tread design steel-belted radial (see~~

4.1 The P195/75R14 standard reference test tire shall feature the steel-belted radial technology and an all-season tread design (see Fig. 1 and Fig. 2~~).~~

~~3.2The tire shall be designed to conform with the Tire and Rim Association (TRA) standard nominal dimensions and tolerances for cross section and overall diameter found in the Current Year Book.~~

~~3.3The tire used for this specification is produced by the Uniroyal Goodrich Tire Company, Inc.~~), and with technology as described in Sections 5-7.

4.2 The tire shall be designed to conform with the Tire and Rim Association, Inc. (TRA) standard nominal dimensions and tolerances for cross section and overall diameter found in the current Year Book.[4] ~~The tire is stamped on the sidewall with the words: "Standard Reference Test Tire."~~

~~[3] Available from the Tire and Rim Association, 175 Montrose West Ave., Suite 150, Copely, OH 44321.~~

[3] Available from the Rubber Manufacturers Association 1400 K Street, N.W. Washington, D.C. 20005.

~~[4] Available from Uniroyal Goodrich Tire Company, Inc., Opelika Plant, P.O. Box 30, Opelika, AL 36801, Attn: Development Qualification Center SRTT Manager.~~

[4] Available from the Tire and Rim Association, Inc., 175 Montrose West Ave., Suite 150, Copley, OH 44321.

FIG. 1 Front View of ~~a~~ the P195/75R14 Radial Standard Reference Test Tire

FIG. 2 Side View of a the P195/75R14 Radial Standard Reference Test Tire

~~4.~~

4.3 The tire used for this specification is produced by BFGoodrich Tire Manufacturing.[5] The tire stampings on the sidewall include: "ASTM E1136" and "Standard Reference Test Tire."

5. Materials and Manufacture

~~4.1The~~5.1 The individual standard reference test tires shall conform to the manufacturer's design standards. ~~Dimensions, weights,~~ Dimensions and permissible variations are given in ~~Section 7 and Table 1~~Fig. 3and ~~Table 2~~Table 1.

~~4.2Tread compounding, fabric processing, and all the steps in tire manufacturing shall be controlled to ensure minimum variability between tires.~~

~~4.3The standard reference test tire shall be as originally molded without any tread grinding or repairs.~~

~~5.Material Requirements~~

~~5.1The requirements for tread compound are given in Table 1.~~

~~5.1.1Certain proprietary products have been specified since exact duplication of properties of the finished tire may not be achieved with other similar products. This inclusion does not in any way comprise a recommendation for these proprietary products, nor against similar products of other manufacturers, nor does it imply any superiority over any such similar products.~~

~~5.2The tire shall be of the following construction:~~

~~5.2.1One-ply sidewall (polyester), and~~

~~5.2.2A three-ply tread (one polyester and two steel belts).~~

5.2 Tread compounding, fabric processing, and all the steps in tire manufacturing shall be controlled to ensure minimum variability between tires.

5.3 The standard reference test tire shall be as originally molded without any tread grinding or repairs.

6. ~~Physical Properties~~

~~6.1The physical properties of the tread compound are listed in~~ Material Requirements

~~[5] Shore model XAHAF has been found suitable.~~

[5] The sole source of supply of the standard reference tire known to the committee at this time is BFGoodrich Tire Manufacturing, 1101 Michelin Road, Ardmore, OK 73401 (specify P195/75R14 SRTT Uniroyal Tiger Paw). Ordering information is available on the ASTM F09 website: http://www.astm.org/COMMIT/COMMITTEE/F09.htm. If you are aware of alternative suppliers, please provide this information to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend.