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.

Designation: D4592 – 12 (Reapproved 2022)

Standard Specification for Preformed Retroreflective Pavement Marking Tape for Limited Service Life[1]

This standard is issued under the fixed designation D4592; 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 specification covers white or yellow preformed retroreflective pavement marking tapes that are designed to provide a service life of typically three to six months, depending on wear and durability factors.

1.2 The tapes are intended for use as longitudinal, transverse, or word/symbol pavement markings that provide delineation day and night. The tapes may be either removable or nonremovable.

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

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]

D1000 Test Methods for Pressure-Sensitive Adhesive-Coated Tapes Used for Electrical and Electronic Applications

D4061 Test Method for Retroreflectance of Horizontal Coatings

D6628 Specification for Color of Pavement Marking Materials

E303 Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester

E1710 Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retroreflectometer

2.2 *Federal Standard:*[3]

Fed Std Test Method 141

2.3 *CIE Publications:*[4]

No. 15.2 Colorimetry

No. 39.2 Recommendations for Surface Colours for Visual Signaling

3. Terminology

3.1 *Definitions:*

3.1.1 *limited service life or period*—a minimum service period of three months when placed in accordance with the manufacturer's recommended procedures on pavement surfaces.

NOTE 1—See Section 7 for factors affecting durability.

3.1.2 *preformed tape*—continuous, flexible pavement marking material that is essentially complete and that may be affixed to or imbedded in the road surface without fundamentally altering its configuration.

3.1.3 *retroreflection*—reflection in which radiation is returned in directions close to the direction from which it came, this property being maintained over wide variations of the direction of the incident radiation.

3.1.4 *retroreflector*—surface or device that reflects and returns a relatively high proportion of light in a direction close to the light source. This characteristic is maintained over a wide variation of the angle made by the incident light ray and the normal to the retroreflective surface.

3.1.5 *surface pattern*—a pattern on the surface with areas of raised surface area.

4. Classification

4.1 Pavement marking tape manufactured according to this specification shall be identified as Type I or Type II:

[1] This specification is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.38 on Highway Traffic Control Materials.

Current edition approved May 1, 2022. Published May 2022. Originally approved in 1986. Last previous edition approved in 2017 as D4592 – 12 (2017). DOI: 10.1520/D4592-12R22.

[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] Available from Naval Publications and Forms Center, 5801 Tabor Ave, Philadelphia, PA 19120.

[4] Available from U.S. National Committee of the CIE (International Commission on Illumination), c/o Thomas M. Lemons, TLA-Lighting Consultants, Inc., 7 Pond St., Salem, MA 01970, http://www.cie-usnc.org.

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