



# Standard Specification for Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements<sup>1</sup>

This standard is issued under the fixed designation D5893/D5893M; 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 cold applied, single component, chemically curing silicone sealants that are based on polymers of polysiloxane structures and are intended for use in sealing joints and cracks in portland cement concrete highway and airfield pavements. The specification includes both non-sag and self-leveling types of sealants.

1.1.1 This specification does not purport to cover the properties required of sealants for use in areas of portland cement concrete pavements subject to jet fuel or other fuel spillage, such as vehicle or aircraft refueling and maintenance areas, or a combination thereof.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.3 The following safety hazards caveat pertains only to the test methods portion, Section 9, of this specification: *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.* Specific precautionary statements are given in [Appendix X1](#).

## 2. Referenced Documents

### 2.1 ASTM Standards:<sup>2</sup>

[C639](#) Test Method for Rheological (Flow) Properties of Elastomeric Sealants

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee [D04](#) on Road and Paving Materials and is the direct responsibility of Subcommittee [D04.33](#) on Formed In-Place Sealants for Joints and Cracks in Pavements.

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

[C661](#) Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer  
[C679](#) Test Method for Tack-Free Time of Elastomeric Sealants  
[C792](#) Test Method for Effects of Heat Aging on Weight Loss, Cracking, and Chalking of Elastomeric Sealants  
[C793](#) Test Method for Effects of Laboratory Accelerated Weathering on Elastomeric Joint Sealants  
[C1183](#) Test Method for Extrusion Rate of Elastomeric Sealants  
[D618](#) Practice for Conditioning Plastics for Testing  
[D412](#) Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension  
[D1985](#) Practice for Preparing Concrete Blocks for Testing Sealants, for Joints and Cracks  
[D2202](#) Test Method for Slump of Sealants  
[D5249](#) Specification for Backer Material for Use with Cold- and Hot-Applied Joint Sealants in Portland-Cement Concrete and Asphalt Joints  
[D5329](#) Test Methods for Sealants and Fillers, Hot-Applied, for Joints and Cracks in Asphalt Pavements and Portland Cement Concrete Pavements  
[D5535](#) Terminology Relating to Formed-in-Place Sealants for Joints and Cracks in Pavements (Withdrawn 2009)<sup>3</sup>

## 3. Terminology

3.1 *Definitions*—Refer to Terminology [D5535](#) for definitions of the following terms used in this specification: backer material, chemically curing sealant, joint, and sealant.

## 4. Classification

4.1 Sealants meeting the requirements of this specification shall be classified according to type as one of the following:

4.1.1 *Type NS (Non-Sag)*—A single component sealant that resists sagging after application in horizontal joints and requires tooling or forming into the joint to achieve the desired application configuration.

<sup>3</sup> The last approved version of this historical standard is referenced on [www.astm.org](http://www.astm.org).