



Designation: D 2835 – 89 (Reapproved 1998)

# Standard Specification for Lubricant for Installation of Preformed Compression Seals in Concrete Pavements<sup>1</sup>

This standard is issued under the fixed designation D 2835; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

*This standard has been approved for use by agencies of the Department of Defense.*

## 1. Scope \*

1.1 This specification covers a lubricant suitable for facilitating the insertion and positioning of preformed elastomeric compression seals in prepared voids (usually contraction joints) in concrete pavement. For changes to this Standard since the last issue, refer to the Summary of Changes Section at the end of the Standard.

1.2 The requirements of the lubricant are based on the performance of the lubricant as measured by its solids content, homogeneity, consistency and drying rate.

1.3 The values stated in inch-pound units are to be regarded as the standard. The metric equivalents of U.S. customary units may be approximate.

1.4 The following precautionary caveat pertains only to the test method portion, Section 7 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.*

## 2. Referenced Documents

### 2.1 ASTM Standards:

D 1084 Test Methods for Viscosity of Adhesives<sup>2</sup>

D 1644 Test Methods for Nonvolatile Content of Varnishes<sup>3</sup>

## 3. Classification

3.1 The lubricant shall be based on polychloroprene, containing only soluble phenolic resins blended together with antioxidants and acid acceptors in a suitable mixture of organic solvents.

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D-4 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.34 on Preformed Joint Fillers and Sealers.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 15.06.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 06.01.

## 4. Requirements

4.1 *Homogeneity*— The lubricant shall be uniform and contain no lumps or agglomerates.

4.2 *Solids Content*— The nonvolatile content of the lubricant shall be no less than 24.0 weight %.

4.3 *Consistency*— The lubricant shall exhibit a viscosity in one of the following ranges:

4.3.1 *Type I*—for hand or machine application, 3000 to 8000 cP.

4.3.2 *Type II*—for machine application, 8000 to 15 000 cP.

4.4 *Drying Rate*— A bond between lubricant-coated papers prepared after 8-min drying time shall separate completely in less than 10 s when a 50-g load is applied in shear. A similar bond prepared after 20-min drying time shall remain un-separated for a minimum of 10 s when a 50-g load is applied in shear.

## 5. Basis of Purchase

5.1 Each lot of lubricant shall be accompanied by the manufacturer's certified test results attesting compliance with this specification, unless an alternative agreement is concluded by the manufacturer and the purchaser.

## 6. Sampling

6.1 The lubricant samples shall be a 1-quart (1-litre) aliquot consisting of a composite taken when possible from three or more separate containers chosen at random. Samples also shall be taken from containers which appear to be nonrepresentative and shall be tested separately. Before a sample is withdrawn, the contents in the container shall be mixed to uniform consistency. The sample shall be placed immediately in an airtight-glass jar or metal can until tested.

## 7. Test Methods

7.1 *Homogeneity*— Stir the test sample by hand for 2 min with a spatula. Withdraw the spatula and examine the lubricant as it flows from the spatula for lumps or agglomerates. Particles smaller in diameter than 0.015 in. (0.38 mm) shall not be considered cause for rejection.

\*A Summary of Changes section appears at the end of this standard.