



Standard Specification for Preformed Polychloroprene Elastomeric Joint Seals for Bridges¹

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1. Scope

1.1 This specification covers the material requirements for preformed polychloroprene elastomeric joint seals for bridges. The seal consists of a multiple-web design composed of polychloroprene and functions only by compression of the seal between the faces of the joint with the seal folding inward at the top to facilitate compression. The seal is installed with a lubricant adhesive and is designed to seal the joint and reject incompressibles.

NOTE 1—This specification may not be applicable for seals whose height is less than 90 % of its nominal width.

1.2 *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.*

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

2. Referenced Documents

2.1 ASTM Standards:²

- D 412 Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension
- D 471 Test Method for Rubber Property—Effect of Liquids
- D 518 Test Method for Rubber Deterioration—Surface Cracking
- D 573 Test Method for Rubber—Deterioration in an Air Oven
- D 575 Test Methods for Rubber Properties in Compression

- D 1149 Test Method for Rubber Deterioration—Surface Ozone Cracking in a Chamber
- D 2240 Test Method for Rubber Property—Durometer Hardness
- D 3183 Practice for Rubber—Preparation of Pieces for Test Purposes from Products

3. Marking and Ordering Information

3.1 Each lot of seal shall be marked with characters of not less than 0.25 in. (6.35 mm) in height on the top of the seal at a maximum of 4 ft (1.22 m) intervals showing the lot number, date of manufacture, and the manufacturing seal designation. The seal shall also have die markings which are registered with the Rubber Manufacturers Association (RMA).

3.2 The purchaser shall specify the anticipated required minimum acceptable joint movement, and either the minimum joint opening, or the nominal width of seal.

4. Materials and Manufacture

4.1 The seals shall be preformed, and the material shall be vulcanized elastomeric compound using virgin polychloroprene as the only polymer.

5. Physical Requirements

5.1 The materials shall conform to the physical properties prescribed in Table 1.

5.2 In the applicable requirements of Table 1 and the test methods, all deflection shall be based on the nominal width.

6. Dimensions and Working Parameters

6.1 The size, shape and dimensional tolerances shall be as outlined in 6.1.1.

6.1.1 Measurements used for laboratory testing shall be taken to the nearest 0.01 in. (0.3 mm) and reported/recorded to the nearest 0.1 in. (3 mm) as the average of three measurements. The measured width shall be greater than or equal to the nominal width. The seal height shall not be less than 90 % of the nominal width unless joint recess dimensions or special design considerations dictate the geometry.

6.2 *Compression Deflection Properties*—The contact pressure expressed in pounds-force per square inch (or pascals)

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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.