



Designation: C 692 – 9700

Standard Test Method for Evaluating the Influence of Thermal Insulations on External Stress Corrosion Cracking Tendency of Austenitic Stainless Steel¹

This standard is issued under the fixed designation C 692; 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 test method covers two procedures for the laboratory evaluation of thermal insulation materials that may actively contribute to external stress corrosion cracking (ESCC) of austenitic stainless steel due to soluble chlorides within the insulation. It should be understood that this laboratory procedure is not intended to cover all of the possible field conditions that might contribute to ESCC.

1.2 While the 1977 edition of this test method (Dana test) is applicable only to wicking-type insulations, the procedures in this edition are intended to be applicable to all insulating materials, including cements, some of which would disintegrate when tested in accordance with the 1977 edition. Wicking insulations are materials that wet through and through when partially (50 to 75 %) immersed in water for a short period of time (10 min or less).

1.3 These procedures are intended primarily as a preproduction test for qualification of the basic chemical composition of a particular manufacturer's product and are not intended to be routine tests for ongoing quality assurance or production lot compliance. Test Methods C 871, on the other hand, is used for confirmation of acceptable chemical properties of subsequent lots of insulation previously found acceptable by this test method.

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

1.5 *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:

¹ This test method is under the jurisdiction of ASTM Committee C-16 on Thermal Insulation and is the direct responsibility of Subcommittee C16.31 on Chemical and Physical Properties.

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