



Designation: **C929 – 94 (Reapproved 2009) C929 – 14**

Standard Practice for Handling, Transporting, Shipping, Storage, Receiving, and Application of Thermal Insulation Materials For Use in Contact with Austenitic Stainless Steel¹

This standard is issued under the fixed designation C929; 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 practice is intended to provide guidance and direction in the handling, transporting, shipping, storage, receiving, and application of thermal insulating materials to be used as a surface treatment or as part of the thermal insulation system in contact with austenitic stainless steel.

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.*

2. Referenced Documents

2.1 *ASTM Standards:*²

[C168 Terminology Relating to Thermal Insulation](#)

[C195 Specification for Mineral Fiber Thermal Insulating Cement](#)

[C449 Specification for Mineral Fiber Hydraulic-Setting Thermal Insulating and Finishing Cement](#)

[C692 Test Method for Evaluating the Influence of Thermal Insulations on External Stress Corrosion Cracking Tendency of Austenitic Stainless Steel](#)

[C795 Specification for Thermal Insulation for Use in Contact with Austenitic Stainless Steel](#)

[C871 Test Methods for Chemical Analysis of Thermal Insulation Materials for Leachable Chloride, Fluoride, Silicate, and Sodium Ions](#)

3. Terminology

3.1 *Definitions*—Terminology [C168](#) shall apply to this practice.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *corrosive ions*—chloride ion, fluoride ion, and other varieties of acids and ionic chemical contaminants.

3.2.2 *shipment*—that material being received from the same source of manufacture on the same day or each carload, whichever is smaller.

3.2.3 *water damage*—damage caused by water seeping into cartons of insulation or soaking into the insulation that is left exposed to the weather, both of which increase the possibilities of absorption of ~~chloride ion compounds~~ contaminants.

3.2.4 *weathertight*—protected from rain and wind. A dry, sheltered condition wherein reasonable precautions are taken to prevent indiscriminate water from coming in contact with the insulation.

4. Significance and Use

4.1 Insulations that are used as a part of the thermal insulation system in contact with austenitic stainless steels ~~may have the potential to become contaminated with water soluble chloride ions~~ may have the potential to become contaminated with water soluble chloride ions which, in turn, if permitted to reach the stainless steel surface, ~~could be possible to contribute to external stress corrosion cracking (ESCC).~~ could contribute to external stress corrosion cracking (ESCC). Therefore, it is important to reduce the

¹ This practice is under the jurisdiction of ASTM Committee C16 on Thermal Insulation and is the direct responsibility of Subcommittee C16.20 on Homogeneous Inorganic Thermal Insulations.

Current edition approved Sept. 1, 2009; March 15, 2014. Published September 2009; April 2014. Originally approved in 1980. Last previous edition approved in 2004; 2009 as C929 – 04; C929 – 94 (2009). DOI: 10.1520/C0929-94R09; 10.1520/C0929-14.

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.