



Standard Guide for Lock-Strip Gasket Glazing¹

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

1. Scope

1.1 This guide covers the use of lock-strip gaskets in compliance with Specification C542 in walls of buildings not over 15° from a vertical plane. The prime performance considerations are weathertightness against air and water infiltration, and structural integrity under wind loads. Included are terminology, design considerations, and fabrication tolerances when using lock-strip gaskets in glazing applications.

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

1.3 *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

C542 Specification for Lock-Strip Gaskets

C716 Specification for Installing Lock-Strip Gaskets and Infill Glazing Materials

C864 Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers

C963 Specification for Packaging, Identification, Shipment, and Storage of Lock-Strip Gaskets

C1036 Specification for Flat Glass

E283 Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen

E330 Test Method for Structural Performance of Exterior

Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference

E331 Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference

3. Significance and Use

3.1 This guide provides information and guidelines for the design of lock-strip gasket glazing systems. For related standards, see Specifications C542, C716, and C963.

4. Comparison to Other Standards

4.1 The committee with jurisdiction over this standard is not aware of any comparable standards published by other organizations.

DESIGN CONSIDERATIONS

5. General

5.1 Structural integrity and watertightness of a gasket glazing system is dependent on interaction of the several components involved. These systems should be carefully designed and built.

6. Components

6.1 The major components of lock-strip gasket glazing and paneling systems are:

6.1.1 The supporting frame of metal, concrete, or other structural building materials,

6.1.2 Lock-strip gasket, serving as an elastomeric mechanical seal and as a retainer for panel or glass, and

6.1.3 Glass or panel infill.

6.1.4 The design of these components and their accessories are interrelated and the total system must be compatible.

7. Supporting Frames

7.1 Supporting frames are made of many materials, of which the more common are aluminum, steel, and concrete.

7.1.1 *Metal*—Die marks, ridges, offsets, and scratches in metal frames in contact with the gasket lips that could cause leakage should be avoided. Metal in contact with any part of the gasket should have sharp edges and burrs removed to avoid the possibility of damage to the gaskets that could result in

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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.