Designation: C 716 – 00

Standard Specification for Installing Lock-Strip Gaskets and Infill Glazing Materials[1]

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1. Scope

1.1 This specification covers installation procedures for lock-strip gaskets that comply with Specification C 542 and for infill glazing materials in lockstrip gasket glazing applications used in building walls which are not more than 15° from a vertical plane. The prime performance considerations are weathertightness against air and water infiltration, and structural integrity under wind loads.

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

2. Referenced Documents

2.1 *ASTM Standards:*

C 542 Specification for Lock-Strip Gaskets[2]

C 717 Terminology of Building Seals and Sealants[2]

C 963 Specification for Packaging, Identification, Shipment, and Storage of Lock-Strip Gaskets[2]

C 964 Guide for Lock-Strip Gasket Glazing[2]

3. Terminology

3.1 *Definitions*—Refer to Terminology C 717 for the following terms used in this Specification: bite, edge spacer, elastomer, gasket, glazing, hardness, joint, lock-strip gasket, reglet, sealant, setting block and spacer.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *clamping pressure*, *n*—the pressure exerted by the lip of a lock-strip gasket on material installed in the channel when the lock-strip is in place.

3.2.2 *durometer*, *n*—(*1*) an instrument for measuring the hardness of rubber-like materials. (*2*) a term used to identify the relative hardness of rubber-like materials, for example, "low durometer" (relatively soft) or "high durometer" (relatively hard).

3.2.3 *edge clearance*, *n*—the distance between the bottom of a channel of a lock-strip gasket and the edge of material installed in the channel (see Figs. 1-3).

3.2.4 *elongation*, *n*—increase in length, expressed as a percentage of the original length.

3.2.5 *filler strip*—see *lock-strip*, the preferred term.

3.2.6 *flange*, *n*—that part of a lock-strip gasket which extends to form one side of a channel (see Figs. 1 and 2).

[1] This specification is under the jurisdiction of ASTM Committee C-24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.73 on Compression Seal and Lock-Strip Gaskets.

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[2] *Annual Book of ASTM Standards*, Vol 04.07.

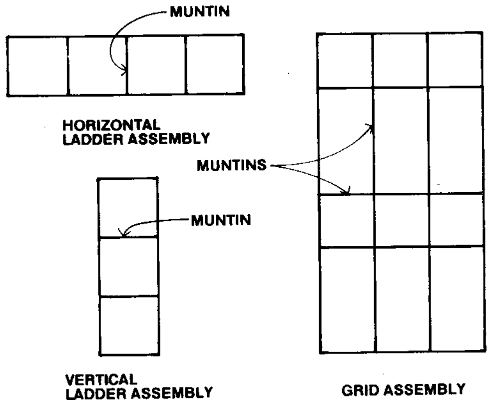

FIG. 3 Gasket Systems

3.2.7 *gasket, structural*—see *gasket, lock-strip*, the preferred term.

3.2.8 *gasket, zipper*—see *gasket, lock-strip*, the preferred term.

3.2.9 *H-gasket*—see *gasket, lock-strip* and Fig. 1.

3.2.10 *hinge*, *n*—the minimum thickness of gasket material between the channel recess and the lock-strip cavity; the plane at which bending occurs when the flange is bent open to receive or release installed material.

3.2.11 *horizontal ladder gasket*, *n*—a ladder gasket installed in a vertical plane in such a way that the intermediate cross members (muntins) are vertical members (see Fig. 3).

3.2.12 *ladder gasket*, *n*—a lock-strip gasket in the form of a subdivided frame having one or more integrally formed intermediate cross members (see Fig. 3).

3.2.13 *lip*, *n*—the inner face of the tip of a flange on a lock-strip gasket (see Figs. 1 and 2).

3.2.14 *lip pressure*, *n*—the pressure exerted by the lip of a lock-strip gasket on material installed in the channel when the lock-strip is in place.

3.2.15 *lock-strip or locking strip*, *n*—the strip that is designed to be inserted in the lock-strip cavity to force the lips against material placed in the channel (see Figs. 1 and 2).

3.2.16 *lock-strip cavity*, *n*—the groove in the face of a lock-strip gasket designed to receive and retain the lock-strip (see Figs. 1 and 2).

3.2.17 *muntin*, *n*—a secondary intermediate member in a multiple-opening gasket system subdividing a glazed area.

3.2.18 *reglet gasket*[3]—see *gasket, lock-strip* and Fig. 2.

3.2.19 *spacer shim*, *n*—a length of suitable material placed in the gasket channel to maintain proper edge clearance at the sides of an installed panel or glass.

3.2.20 *supported gasket member*, *n*—a gasket member held in place by a supporting frame member.

3.2.21 *spline or tongue*, *n*—that part of a reglet-type lock-strip gasket which is designed to be installed in a reglet in supporting material (see Fig. 2).

3.2.22 *unsupported gasket member*, *n*—a gasket member joining infill materials without being held in place by a supporting frame member.

3.2.23 *vertical ladder gasket*, *n*—a ladder gasket installed in a vertical plane in such a way that the intermediate cross members (muntins) are horizontal members (see Fig. 3).

3.2.24 *web*, *n*—that part of an H-type lock-strip gasket that extends between the flanges, forming two channels and that part of a reglet-type lock-strip gasket that extends between the flanges and spline (see Figs. 1 and 2).

4. Significance and Use

4.1 This specification can be referred to in contract documents as a method and workmanship standard for the installation of lock-strip gasket glazing systems. See also related standards (Specifications C 542 and C 963, Guide C 964, and Terminology C 717).

5. Installation

5.1 *Inspection of Components*—Before installing gaskets, the installer shall check the mounting frames to see that they are within specified dimensional tolerances and not out-of-square or plane, and check all gaskets for type, dimensions, and defects such as misalignment at molded corners and damaged lips. Installation shall not proceed until corrections have been made.

5.2 *Environmental Conditions*—Maximum efficiency and sealing capability of gaskets is achieved in a clean, dry, warm environment, with the gasket kept resilient during the entire installation process. During cold weather the use of temporary enclosures around the units to be glazed or paneled will facilitate temperature control and also aid in keeping open gasket channels clean and dry.

5.3 *Preparation and Conditioning of Gaskets*—Lock-strip gaskets require conditioning prior to installation in order to restore maximum resiliency and remove deformations after prolonged storage in a coiled or stressed position. Gaskets shall be unpacked from their containers and conditioned for 24 h in a temperature not lower than 70°F (21.1°C) by being placed flat or hung on racks to permit recovery of their original shapes. Racks shall be free of rough surfaces, projections, sharp edges, and other conditions that could damage the gaskets. When the ambient temperature is 50°F (10°C) or below and a heated space is not available, gaskets shall be heated by other means to remove deformations and provide a high degree of flexibility and resiliency. This may be done by warming them in hot water or heated containers. Gaskets shall not be heated by being draped over heated units or placed in direct contact with a flame or fired heating device. The installation of glass, panel, and lock-strip shall be completed while the gasket is still warm and pliable and with the gasket channels clean and dry.

5.4 *Use of Tools*—To minimize the possibility of damage, sharp or pointed tools or implements such as screwdrivers or putty knives shall not be used on lock-strip gaskets. Suitable gasket installation tools, such as nonmetallic spatulas and engineered lock-strip insertion devices, are available from the gasket manufacturer.

5.5 *Use of Lubricants*—If necessary a lubricant may be applied to the contact surfaces of the gasket to ease the installation and help prevent damage to the gasket, glass, or

[3] Patented, U.S. 3,068,617 and U.S. 3,213,584.