

CSS (2FR)-V & CSS (3FR)-V

Description

The CSS(FR2)-V and CSS (FR3)-V (vertical application) seals feature waterproof silicone faces on each side of a fire-retardant impregnated foam sealant, without the need for an additional set of intumescent bellows. The main function of the silicone face is to enhance the waterproofing nature of the sealant and provide an aesthetically pleasing, colored finish. The CSS(FR2)-V and CSS (FR3)-V provide a factory controlled, watertight, clean handling, UV stable, sound attenuating, energy efficient and fire-rated joint seal in a single, unified installation process. They are designed to be used alone, but can be used behind any other expansion joint cover, plate or filler where joint depth allows.

Depending on the application, CSS(FR2)-V and CSS (FR3)-V can be supplied uncoated or coated on one or both sides. Uncoated material is to be used in enclosed applications only.

Available sizes range from 1/2" (12mm) to 4 1/2" (112mm), with sizes 1" and greater supplied in 1/4" increments. Depth of the seal is 2", 3" or 4" depending on listing. Listings with a 2" depth have a fire rating of 1 or 2 hours. Visit www.ul.com for more information.

CSS(FR2)-V and CSS (FR3)-V Silicone Faces: Dow Corning® 790 custom colors are available.
Pick Resistant Urethane: Tru White, Limestone



Testing and Standards

- CSS(FR2)-H and CSS(FR3)-H have been tested and certified under UL 2079. They meet the requirements of ASTM E1966, ASTM E119 and ASTM E1399. UL 2079, like ASTM E119, was developed to encompass the fire testing of ASTM E119 and movement cycling regime of ASTM E1399.
- It is also tested to ASTM E283, 330, 331 and 547 to confirm its sealing capabilities through its entire stated movement range. ASTM E90 testing has been completed to verify the sound attenuating properties of the system.

Features and Benefits

- **Watertight:** Installed with tensionless bellows, which when installed with an optional silicone bead on the weather face, maintains a watertight seal.
- **Pick Resistant:** Pick resistant urethane faces are used in applications where vandalism is a concern.
- **Fire-Rated:** The fire-retardant-impregnated foam, when properly installed, provides a 2 hour or 3 hour fire rating in accordance with UL-2079.
- **Sound Attenuation:** Minimizes sound transfer which can occur at expansion joints and wide openings.
- **Non-Invasive Anchoring:** There is no drilling or modification to the substrate required. This includes embedded pins, anchors, screws, bolts, tracks, rails, flanges or cover plates. The system is secured to the joint substrate by means of the internal recovery force of the foam, the epoxy adhesive, and the optional injected sealant beads at the joint face.
- **Movement Capability:** +/- 25% or +/- 50% depending on UL listing.
- **Joint –Size Variation:** Additional product features include controlling uniform bellows appearance and the ability to handle variations in joint size through incremental sizing.
- **Factory Fabricated Transitions:** Continuity of seal through changes in plane and direction is essential to system performance.

| PRODUCT | MIN. WIDTH IN (MM) | MID-RANGE** IN (MM) | MAX. WIDTH IN (MM) | TOTAL MOVEMENT IN (MM) |
|--------------------|--------------------|---------------------|--------------------|------------------------|
| CSS(FR2/FR3)-V-050 | 0.25" (6.4) | 0.50" (12.7) | 0.75" (19.1) | 0.50" (12.7) |
| CSS(FR2/FR3)-V-100 | 0.50" (12.7) | 1.00" (25.4) | 1.50" (38.1) | 1.00" (25.4) |
| CSS(FR2/FR3)-V-150 | 0.75" (19.1) | 1.50" (38.1) | 2.25" (57.2) | 1.50" (38.1) |
| CSS(FR2/FR3)-V-200 | 1.00" (25.4) | 2.00" (50.8) | 3.00" (76.2) | 2.00" (50.8) |
| CSS(FR2/FR3)-V-250 | 1.25" (31.8) | 2.50" (63.5) | 3.75" (95.3) | 2.50" (63.5) |
| CSS(FR2/FR3)-V-300 | 1.50" (38.1) | 3.00" (76.2) | 4.50" (114.3) | 3.00" (76.2) |
| CSS(FR2/FR3)-V-350 | 1.75" (44.5) | 3.50" (88.9) | 5.25" (133.4) | 3.50" (88.9) |
| CSS(FR2/FR3)-V-400 | 2.00" (50.8) | 4.00" (101.6) | 6.00" (152.4) | 4.00" (101.6) |
| CSS(FR2/FR3)-V-450 | 2.25" (57.2) | 4.50" (114.3) | 6.25" (158.8) | 4.50" (114.3) |

**Sizes 1" and greater available in 0.25" increments

