

ISEAL EP®

Panel Joint Sealant System

Product Description

ISEAL EP (Exterior Panel) is a compressed fit extruded silicone gasket system developed specifically for panel technology. iSEAL EP is for above grade exterior wall panel conditions to provide thermal protection, air & water infiltration protection, and is not susceptible to UV damage.

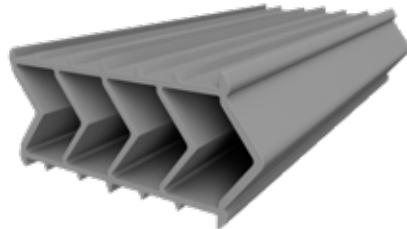
The system consists of extruded silicone gaskets that are adhered to the substrate/panels with silicone sealant. A proprietary iSEAL EP Exoskeletal 4-way splice is used at all four-way vertical-to-horizontal splices to ensure continuity of performance at splices.

Gasket Seals:

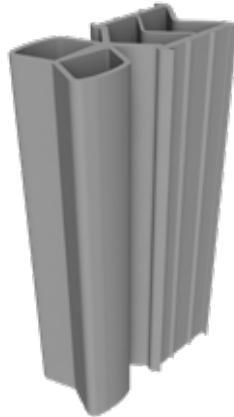
ASTM C1115, Type C silicone extrusion compound, gray or black

Building Sealant:

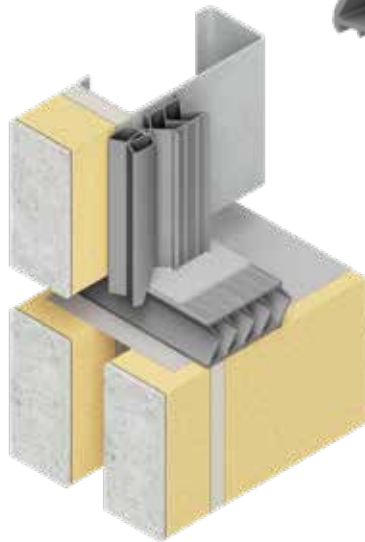
DOW Corning 795 Silicone



ISEAL EP Horizontal Base



ISEAL EP Vertical Base



ISEAL EP shown at 4-WAY joint, one panel removed for clarity.

UL Performance Mockup Testing:

- ASTM E330 (Preloading Wind Load)
- ASTM E283 (Air Infiltration, Static Pressure)
- ASTM E331 (Water Penetration, Static Pressure)
- AAMA Standard 501.1 (Water Penetration, Dynamic Pressure)
- AAMA Standard 501.4 (Interstory Horizontal Left & Right Movement)
- AAMA Standard 501.4 (Interstory Horizontal In & out Movement)
- AAMA Standard 501.7 (Interstory Vertical Up & Down Movement)
- ASTM E330 (Structural Performance)
- ASTM E331 (Water Penetration with Sealant Defect, Static Pressure)

** For more information regarding performance of iSeal review the complete UL Performance Mock-Up test report on our website: <https://steelnetwork.com/iseal-ep>

Technical Data

Structural	ASTM E330 Pass at 60 PSF
Air Leakage	ASTM E283 <0.04 CFM @ 6.24 PSF
Water (Dynamic)	AAMA 501.1 Pass at 15 PSF
Water (Static)	ASTM E331 Pass at 15 PSF
Seismic and Interstory Drift	AAMA 501.4 No damage at 1% of story height, No damage at +/- 3/4" vertical displacement

Performance and Physical Properties

Dow Corning 795 Silicone Building Sealant			
Test	Property	Unit	Result
As Supplied			
ASTM C 679	Tack-Free Time, 50% RH	Hours	3
	Curing Time at 25°C (77°F) and 50% RH	Days	7-14
	Full Adhesion	Days	14-21
ASTM C 639	Flow, Sag or Slump	Inches (mm)	0.1 (2.54)
	Working Time	Minutes	20-30
	VOC Content ¹	g/L	28
As Cured-After 21 Days at 25°C (77°F) and 50% RH			
ASTM D 2240	Durometer Hardness, Shore A	Points	35
ASTM C 794 Hardness, Shore A	Peel Strength	lb/in (kg/cm)	32 (5.7)
ASTM C 1135	Tension Adhesion Strength		
	At 25% Extension	psi (MPa)	45 (0.310)
	At 50% Extension	psi (MPa)	60 (0.414)
ASTM C 719	Joint Movement Capability	Percent	±50
ASTM C 1248	Staining (Granite, Marble, Limestone, Brick, and Concrete)		None
As Cured-After 21 Days at 25°C (77°F) and 50% RH followed by 10,000 hours in a QUV weatherometer, ASTM G 53			
ASTM C 1135	Tensile Adhesion Strength		
	At 25% Extension	psi (MPa)	35 (0.241)
	At 50% Extension	psi (MPa)	50 (0.345)

¹Based on South Coast Air Quality Management District of California. Maximum VOC is listed both inclusive and exclusive of water and exempt compounds. For a VOC data sheet for a specific sealant color, please send your request to product.inquiry@dowcorning.com

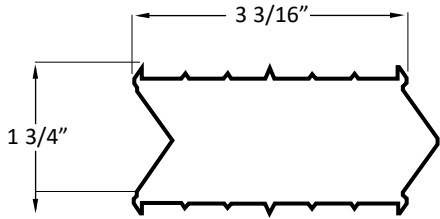
ISEAL EP Gasket Parts						
	Item	Dimensions		Nominal Joint Width	Tolerance	
	iSEAL EP / Horizontal Seal / Base	IHB	3 3/16"	1 3/4"	1-1/4"	+/- 3/16"
	iSEAL EP / Horizontal Seal / Splice	IHS	1/16"	1 7/8"	1-1/4"	+/- 3/16"
	iSEAL EP / Vertical Seal / Base	IVB	1 1/2"	1 9/16"	1"	+/- 3/16"
	iSEAL EP / Vertical Weather Seal	IVW	1 1/4"	1 1/2"	1"	+/- 3/16"
	iSEAL EP / Vertical Weather Seal Ext.	IVE	1/8"	2"	N/A	N/A

Note: Standard colors are grey or black

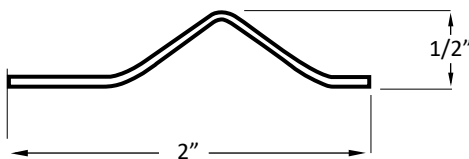
Gasket Geometry

Note: All dimensions show gaskets in non-compressed condition

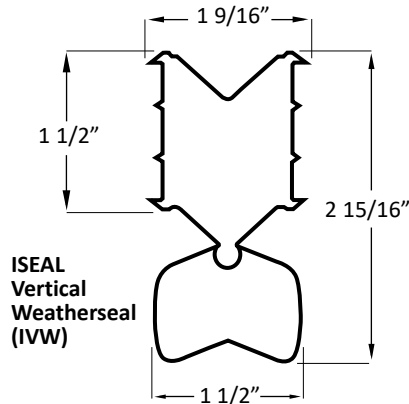
ISEAL Horizontal Base (IHB):



ISEAL Horizontal Splice (IHS):

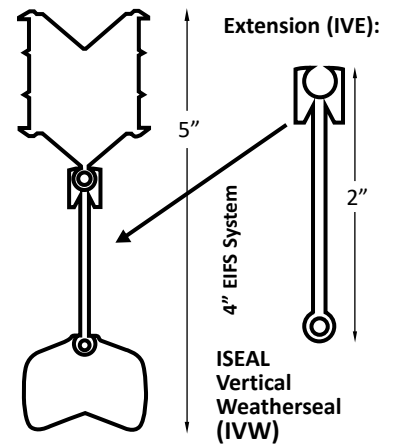


ISEAL Vertical Base (IVB):



ISEAL Vertical Weatherseal (IVW)

ISEAL Vertical Base (IVB):

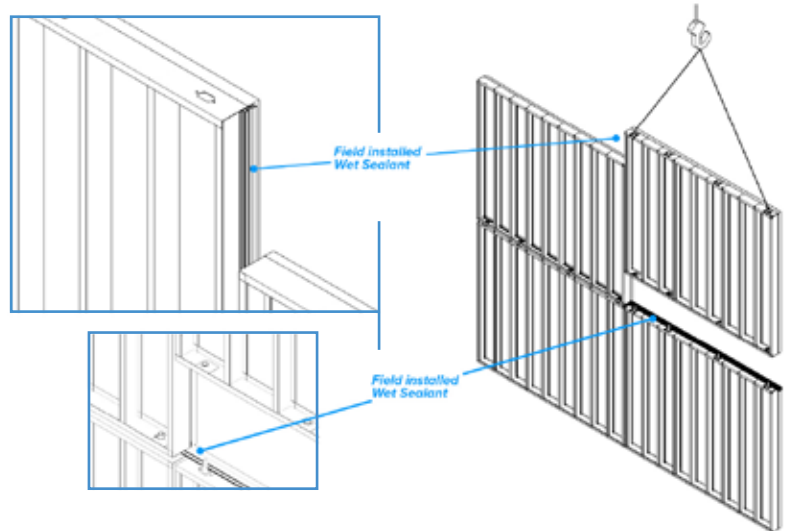


Installation:

Over 90% of the iSEAL EP system is shop installed. The horizontal and vertical seals are shop installed. 3-way and 4-way joints are installed in the field as panels are set. All joints to be installed by qualified technicians.

The horizontal joint at the panel below and the vertical joint at the panel edge are filled with sealant to the top of the depth gage. The panel is then set using the patented Torpedo alignment system to ensure accurate alignment of the iSEAL EP system with adjacent panels. Finally, the Exoskeletal Seal splice is installed at 3-way and 4-way splices.

** For more information regarding installation and performance of iSeal, review the installation guide and the complete UL Performance Mock-Up test report on our website: <https://steelnetwork.com/iseal-ep>



Limitations

iSeal and its complimentary installation products should not be used:

- When surface temperatures exceed 50°C (122°F) during installation.
- On surfaces that are below grade or continuously immersed in water.
- On building materials that bleed oils, plasticizers or solvents that may affect adhesion.
- On frost laden or wet surfaces.
- In totally confined joints (the sealant requires atmospheric moisture for cure).
- If the sealant is intended to be painted (paints do not typically adhere to most silicone sealants).
- To surfaces in direct contact with food or other food-grade applications.

** The Steel Network, Inc. (TSN) is the exclusive distributor for iSeal EP, by PeerEngine, LLC. For more warranty information, see PeerEngine's iSeal EP Limited Warranty.