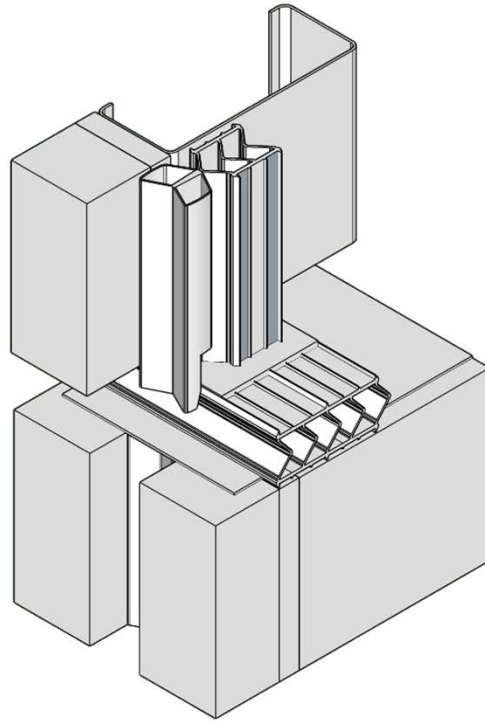


# ISEAL<sup>EP</sup>® PRODUCT DATA

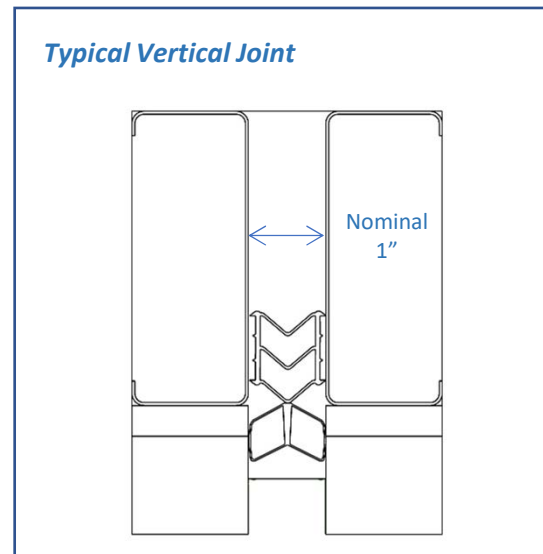
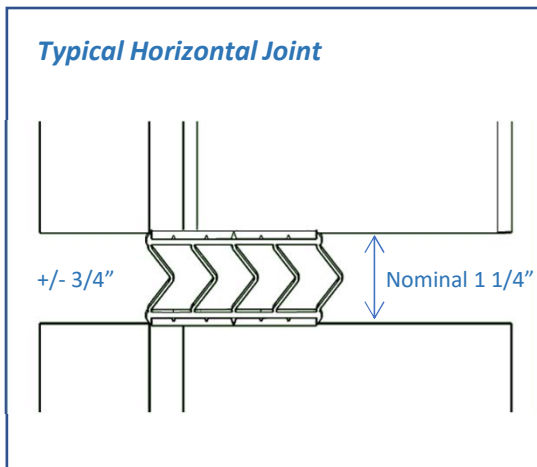
*ISEAL EP shown at 4-WAY joint, one panel removed for clarity.*



## **Product Description**

ISEAL EP (Exterior Panel) is a compressed fit extruded silicone gasket system developed specifically for StoPanel Technology. ISEAL EP is for above grade exterior wall panel conditions, it provides 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.



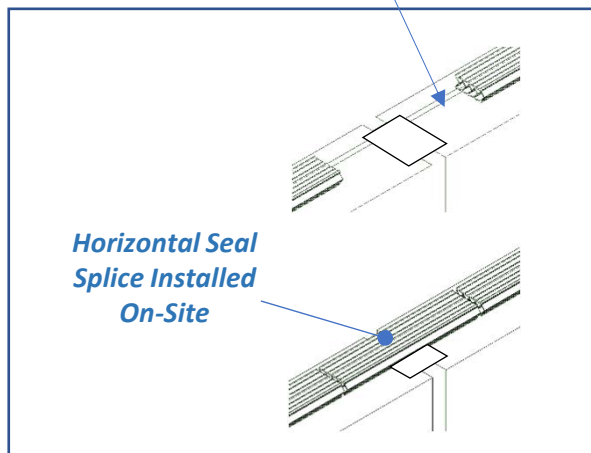
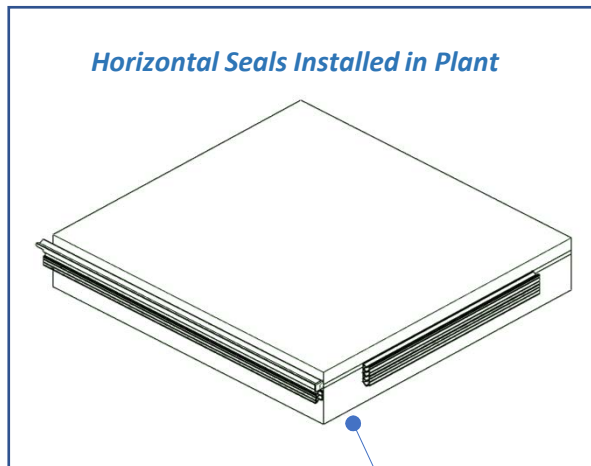
## Benefits

**Proven Materials:** The ISEAL EP system uses proven silicone materials. Silicone has been used for over 30 years in conjunction with Sto® products.

**Proven Performance:** The ISEAL EP system, including the exoskeletal 4-way splice has been subjected to rigorous laboratory testing to validate system performance.

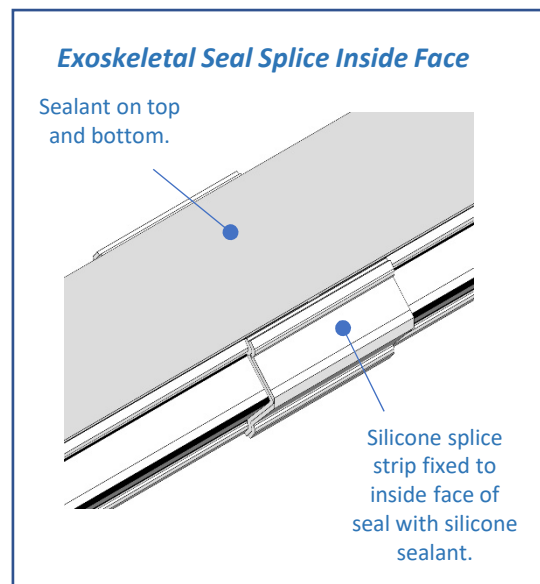
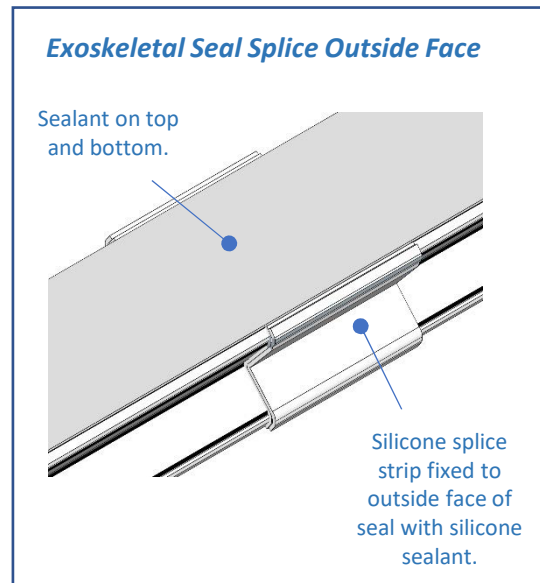
**Factory Installation Quality:** Over 90% of the ISEAL EP system is shop installed in a controlled environment with rigorous quality control, eliminating the quality challenges of field installed sealant/backer rod joints.

**Movement Capacity:** The ISEAL EP gasket is highly flexible and able to easily accommodate building movements while imparting lower loads on the panel joints as compared to a traditional sealant/backer rod joint. This reduces the risk of adhesive joint failure.



**Faster Dry-In:** With the ISEAL-EP system the 4-Way splice joints are installed as the panels are erected, providing completed panel perimeter joints with each installed panel. With traditional sealant/backer rod joints the joints are typically installed after all panels are installed, leaving the building exposed to the elements during construction.

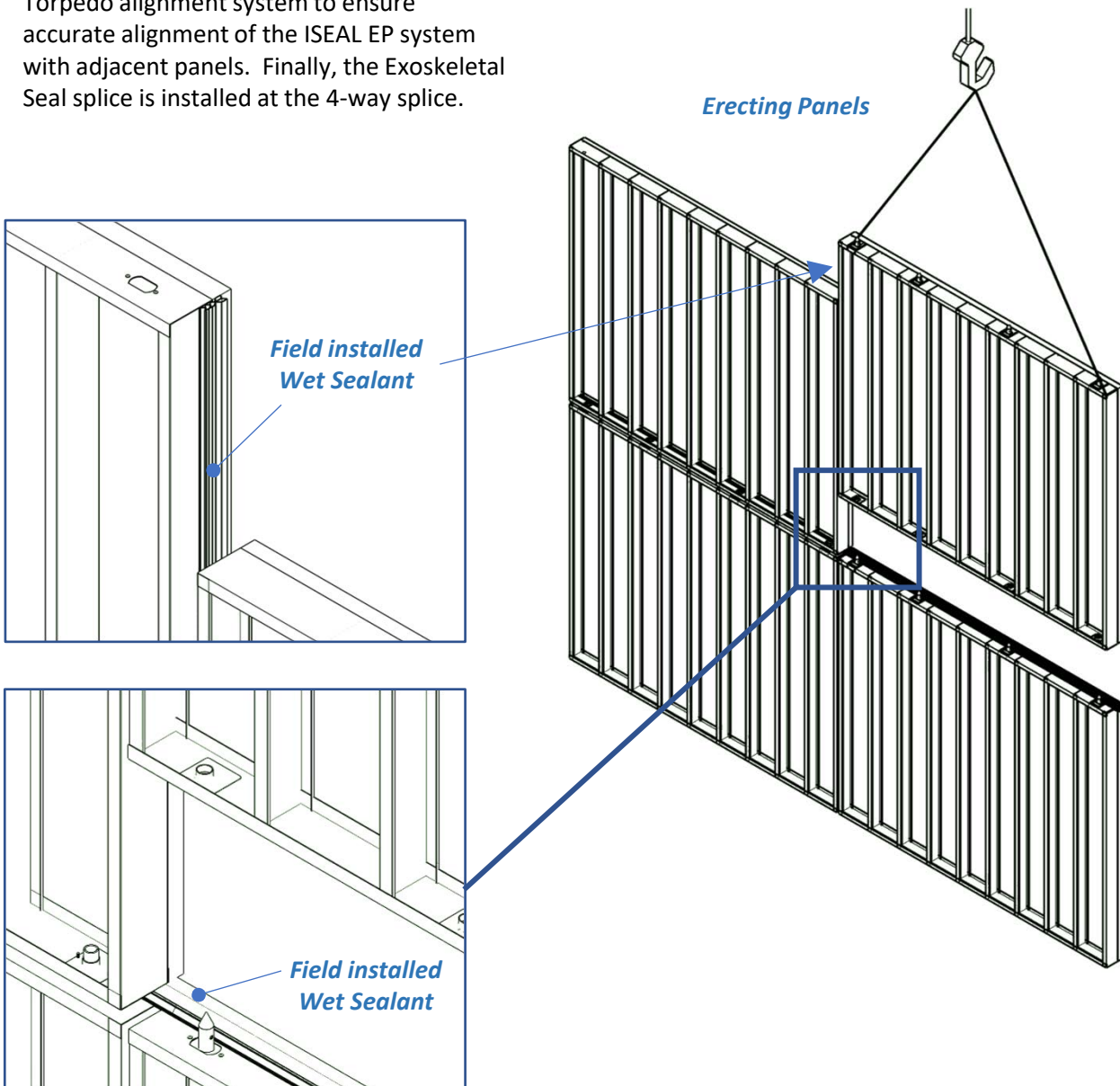
**Installation Quality Control:** The ISEAL EP extrusion is designed with sealant depth gauging tabs, which allow for easy visual confirmation of correct sealant depth. The STO panels are installed using the patented Torpedo alignment system ensuring accurate alignment of ISEAL EP joints at interfaces with adjacent panels.



## Installation

Over 90% of the ISEAL EP system is shop installed. The horizontal and vertical seals are shop installed. The 4-way joint is installed in the field as the panels are set. All joints are installed by trained 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 the 4-way splice.



## 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 & 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
<b>As Supplied</b>			
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 <sup>1</sup>	g/L	28
<b>As Cured-After 21 days at 25°C (77°F) and 50% RH</b>			
ASTM D 2240	Durometer Hardness, Shore A	points	35
ASTM C 794	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
<b>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</b>			
ASTM C 1135	Tensile Adhesion Strength		
	At 25% extension	psi (MPa)	35 (0.241)
	At 50% extension	psi (MPa)	50 (0.345)

<sup>1</sup>Based 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](mailto:product.inquiry@dowcorning.com).

### Gasket Seals

70 DUROMETER SILICONE RM370555			
This is commercial grade profile extrusion compound. Also available in color.			
<b>General Purpose: ASTM C1115, Type C</b>			
Properties	Specifications	Typical Value	Test Method
Hardness, Type A, Pts.	70 ± 5	74	ASTM D2240
Tensile, min, MPA (psi)	5.0 (725)	8.4 (1224)	ASTM D412
Elongation, Min, %	125	308%	ASTM D412
Specific Gravity	Report	1.37	ASTM D792
Tear Resistance, Die B, Min, kN/m (lbf/in)	9 (51)	24.5 (140)	ASTM D624
Compression Set, 22 hrs @ 100°C Method B, Max, %	15	7.5%	ASTM D395
Heat Resistance, 70 hrs @ 150°C			ASTM D573
Change in Hardness, max, pts	± 5	+ 2	
Change in Tensile, max, %	± 15	+ 1.0	
Change in Elong., max, %	± 30	- 26.0	
Low Temperature Brittleness, 3 minutes @ -40°C Method A, No Cracks or Cracking		Passed	ASTM D2137
Ozone Resistance, 100 hrs @ 300mPa @ 70°C, 20% elongation Method B, Procedure B1, 7x, No Cracks or Cracking		Passed	ASTM D1149
Staining of Surface, 48 hrs @ 70°C, Delstar Acrylic White Enamel in conjunction with Satin Primer DPE-1338 Method A, No Contact Stain		Passed	ASTM D925
Staining of Surface, 48 hrs w/UVA-340 bulbs per ASTM G-154 Delstar Acrylic White Enamel in conjunction with Satin Primer DPE-1338 Method B, No Migration Stain		Passed	ASTM D925

## Limitations

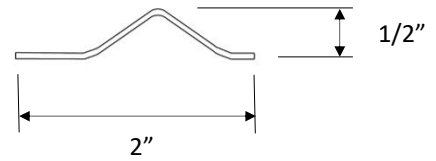
### ISeal and its complimentary installation products should not be used:

- 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.

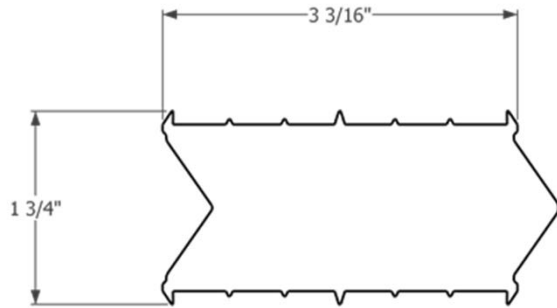
# ISEAL Gasket Geometry

NOTE: All dimensions show gaskets in non-compressed condition.

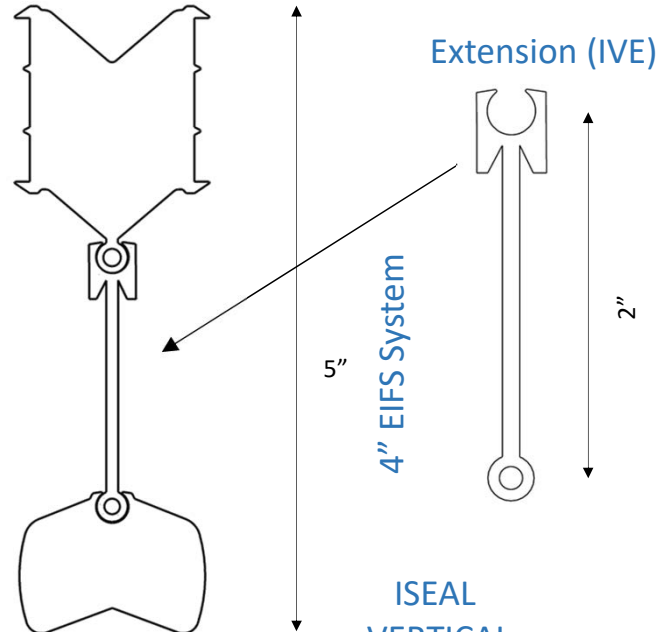
## ISEAL HORIZONTAL SPLICE (IHS)



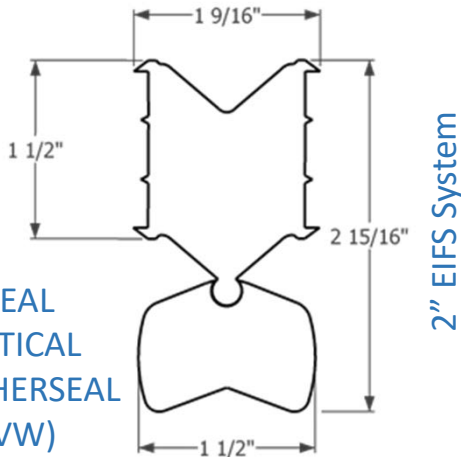
## ISEAL HORIZONTAL BASE (IHB)



## ISEAL VERTICAL BASE (IVB)



## ISEAL VERTICAL BASE (IVB)



## ISEAL VERTICAL WEATHERSEAL (IVW)



## ISEAL VERTICAL WEATHERSEAL (IVW)

ISEAL EP GASKET PARTS						
	ITEM	DIMENSIONS		SKU	NOMINAL JOINT WIDTH	TOLERANCE
ISEAL EP / HORIZONTAL SEAL / BASE	IHB	3 3/16"	1 3/4"	IHB318751750	1-1/4"	+/- 3/16"
ISEAL EP / HORIZONTAL SEAL / SPLICE	IHS	1/16"	1 7/8"	IHS318751750	1-1/4"	+/- 3/16"
ISEAL EP / VERTICAL SEAL / BASE	IVB	1 1/2"	1 9/16"	IVB150001625	1"	+/- 3/16"
ISEAL EP / VERTICAL WEATHER SEAL	IVW	1 1/4"	1 1/2"	IVW112501500	1"	+/- 3/16"
ISEAL EP / VERTICAL WEATHER SEAL EXT.	IVE	1/8"	2"	IVE002503000	N/A	N/A

NOTE: STANDARD COLORS ARE GREY OR BLACK