



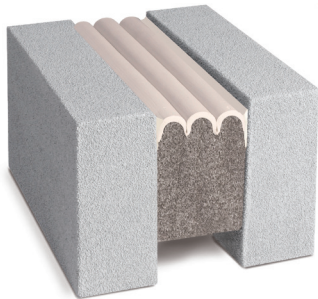
BUILDING TRUST



## PRODUCT DATA SHEET

# Horizontal Colorseal®

*Watertight primary seal in horizontal expansion joints*



Horizontal Colorseal sample shown here is displayed in substrate mock-up

### Product Description

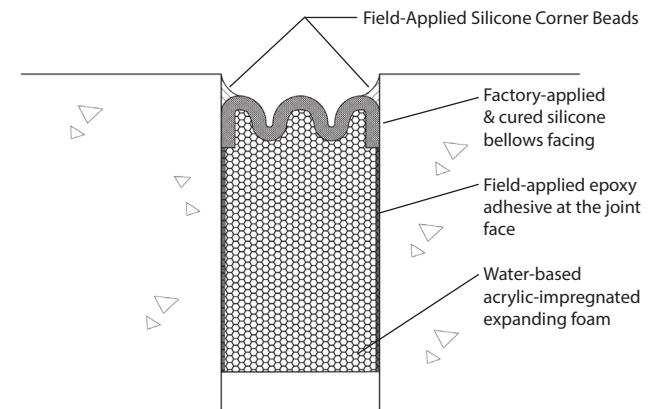
- **Horizontal Colorseal** is an evolution of Sika Emseal's Colorseal product with reduced compression in the expanding foam backing, field-applied epoxy adhesive on the joint faces, and a field-applied silicone corner-bead between the silicone "bellows" sealing element and the substrates.
- **Horizontal Colorseal** is produced by coating an acrylic-impregnated open-cell poly-urethane foam with silicone.
- The expanding foam is an acrylic adhesive infused into the cellular foam base material. This new chemistry incorporates a hydrophobic microsphere component never before available in a sealant formulation.
- The silicone external facing is factory applied at a width greater than maximum joint extension and is cured before final compression.
- When compressed, a bellows is created in the coating. As the joint moves, the bellows fold and unfold; the silicone primary seal is thus virtually never in tension.
- Horizontal Colorseal is supplied in shrink-wrapped lengths (sticks). It is precompressed to less than the joint size. After insertion, it expands against the joint faces.
- Non-invasive anchoring and sealing against the substrate is achieved through a combination of the back-pressure caused by the stored strain energy of compression in the foam backing, the field-applied epoxy adhesive, and the field installation of a corner bead of silicone at the substrate-to-bellows interface.

### Uses and Applications

As a watertight seal in joints including:

- Decks: structural joints, perimeter joints, isolation joints at stair-towers/elevators
- Parapets, roofs
- Concrete covers on above-grade tunnels, wastewater tanks etc.
- Back-up seal beneath expansion joint cover assemblies
- For aesthetically compatible transitions to joints in the vertical plane see Product Data Sheet for Seismic Colorseal

**Figure 1: Horizontal Colorseal with field-applied epoxy and silicone corner beads. Substrates may vary.**



### Advantages

- Features the UV resistance, durability and impermeability of silicone.
- Virtually eliminates tensile stresses at sealant bond line and adverse effects of movement occurring before curing in typical sealant-and-backer-rod applications.
- Both mechanically and chemically anchored through back-pressure inherent in the permanently elastic open-cell foam and the adhesion of the epoxy adhesive and through the field-applied silicone corner bead.
- Reduces installation labor and materials, such as need for accurate positioning of a backer-rod, site mixing, tooling, etc.
- Complete line of industry standard colors.
- Supplied precompressed to less than joint size — no field compression required.

### Limitations

- Metal coverplates (by others) must be installed above Horizontal Colorseal where vehicular or pedestrian foot traffic or other high-point-load/small-contact-surface area loads are anticipated.
- If movement exceeds  $\pm 50\%$  (100% total) of joint-gap size at mean temperature, integrity of seal will be affected.
- Capable of lateral ("shear") movements up to  $\pm 50\%$  (total 100%) of joint size at mean temperature.
- Standard sizes from 1/2" (12mm) to 8" (200mm). Other sizes available subject to review of application: consult Sika Emseal Technical Services.

## Installation

**IMPORTANT:** The following instruction-summary is generic. Refer to "Install Data: Horizontal Colorseal" and job-specific instruction of Emseal technical support for complete procedures.

- Store indoors at room temperature. Expansion is quicker when warm, slower when cold.
- Ensure material nominal size matches joint size.
- Mix epoxy and trowel onto joint faces.
- On smaller-width reels unroll to the desired length. For 2M sticks remove shrink-wrap packaging, hardboard.
- Wipe factory-applied release agent off silicone facing using clean, lint-free rag made damp with solvent.
- Apply thin bead of silicone sealant along edge of bellows at end where the material will join with next length.
- Insert material into joint with at least a 1/4" (6mm) recess and adhere to one side. Material expands to seal joint. (Wedge larger-sized material in place while it expands.)
- Blend silicone at joins into the silicone bellows to create a consistent finished appearance being sure not to restrict the folds of the bellows.
- Once material has equalized its expansion across the joint, gun and tool a 1/4" x 1/4" (4mm x 4mm) corner bead at the substrate-to-bellows interface (see Fig. 1). (Note: unpainted metal surfaces and some natural stone surfaces may require priming — consult EMSEAL.)

## CAD & Guide Specs

[Guide specifications](#) and [CAD details](#) are available online at [Emseal.com](http://Emseal.com) or by [contacting Emseal](#).

## Warranty

Standard or project-specific warranties are available from Sika Emseal on request.

## Availability & Price

Seismic Colorseal is available for shipment internationally. Prices are available from local distributors and representatives or direct from the manufacturer. Product range is continually being updated, and accordingly Sika Emseal reserves the right to modify or withdraw any product without prior notice.

**Table 1: Typical Physical Properties & Testing**

Property / Test	Value	Test Method
Color	Available in many industry standard colors	
Durometer Hardness	Silicone Coating: Shore A, 15 pts.	ASTM D2240
Staining	None	ASTM C510
Weatherometer	Xenon Arc Weatherometer 2000 hrs — No visible deterioration	ASTM G26-77
Primary Surface Weathering	Atlas Weatherometer 6000 hrs—Minimal hardness change	ASTM G26-77
Temperature Range	High Permanent Low Permanent	185°F (85°C) -40°F (-40°C)
Tensile Strength	21 psi min; 145 kPa	ASTM D3574
Thermal Conductivity	0.34 Btu. in/hr. ft <sup>2</sup> °F (0.05 W/m.°C)	ASTM C518

**Table 2: Horizontal Colorseal Sizing**

Nominal Material Size (Joint Size at Mean T°F)		Depth of Seal	
1/2 in*	(12mm)	1 3/4 in	(45mm)
3/4*	(20mm)	1 3/4	(45mm)
1*	(25mm)	1 3/4	(45mm)
1 1/2	(40mm)	2 1/4	(55mm)
2	(50mm)	2 1/2	(65mm)
2 1/2	(65mm)	2 3/4	(70mm)
3	(75mm)	3 1/2	(90mm)
3 1/2	(90mm)	3 3/4	(95mm)
4	(100mm)	4 1/2	(115mm)
4 1/2	(115mm)	5	(125mm)
5	(125mm)	5 1/2	(140mm)
5 1/2	(140mm)	5 3/4	(145mm)
6	(150mm)	6	(150mm)
6 1/2	(165mm)	6 1/2	(165mm)
7	(175mm)	7	(175mm)
7 1/2	(190mm)	7 1/2	(190mm)
8	(200mm)	8	(200mm)

Horizontal Colorseal is available in 1/4" sizes in addition to the sizing above. Consult Sika Emseal. Select nominal material size to correspond to joint-gap size at mean temperature. Sizes of 1/2" (12mm) to 1 1/4" (30mm) are supplied on a 10-ft reel. Wider sizes are supplied as sticks of 6.56-ft (2M)

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