

# PAC Horizontal Seal STC 52



## **Product Description:**

- PAC Horizontal Seal is a 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.
- 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, the bellows are created in the coating. As the joint moves, the bellows fold and unfold; the silicone primary seal is thus virtually never in tension.
- PAC Horizontal Seal is supplied in shrinkwrapped lengths (sticks). It is pre compressed 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.

• Substrates must be clean, parallel, plumb, have sufficient depth to receive the material specified, and be capable of resisting approx. 2.5 psi backpressure from the foam.

## **Uses and Applications:**

 As a watertight seal in joints including: Decks: structural joints, Wall to Wall intersection, Wall to mullion, 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

#### Advantages

- UV Resistant, durability and impermeability of silicone.
- Reduces tensile stress at sealant bond line and adverse effects of movement occurring before curing.
- Both mechanically and chemically adhered through backpressure inherent in the permanently elastic open-cell foam and adhesion of the epoxy adhesive.
- Complete line of industry-standard colors.

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 Supplied pre-compressed to less than joint size — no field compression required.

## Limitations:

- If movement exceeds ±50% (100% total) of joint-gap size at mean temperature, integrity of seal will be affected.
- Capable of lateral ("shear") movements up to ±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 PAC International Technical Services

## Installation:

- Store indoors at room temperature. Expansion is quicker when warm, and slower when cold.
- Ensure material nominal size matches the joint size.
- Mix epoxy and trowel onto joint faces. On smaller-width reels unroll to the desired length. For 6' 6" sticks remove shrink-wrap packaging and hardboard.
- Wipe factory-applied release agent off silicone facing using a clean, lint-free rag made damp with solvent.
- Apply a thin bead of silicone sealant along the edge of the bellows at the end where the material will join with the next length.
- Insert material into joint with at least a 1/4" (6mm) recess and adhere to one side. The material expands to seal the 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 the material has equalized its expansion across the joint, gun and tool a 1/4" x 1/4" (4mm x 4mm) corner bead of caulking at the substrate to-bellows interface
- Substrates must be clean, parallel, plumb, have sufficient clear depth to receive the material specified, and be capable of resisting approx.
  2.5 psi backpressure from the foam.

## Material:

- Description Pre-compressed, silicone coated, and impregnated foam installed into field-applied epoxy adhesive, with silicone sealant band on joint faces.
- Form: Pre compressed to less than nominal material size for installation into designed joint size equal to material nominal size.
- STC rating: 52, tested to ASTM E90.
- OITC rating: 38, tested to ASTM E90.
- Movement capability: Plus or minus 50 percent, total 100 percent; pass ASTM E1399.
- Color: [\_\_\_\_\_.] [To be selected from Sika or Dow Silicone color chart full-color range.]
- Adhesive: Epoxy type, furnished by joint seal manufacturer.
- Silicone: Field applied sealant band at the face of seal to substrate interface, furnished by joint seal manufacturer; same material and color as factory coating.
- Abrasion resistance: Maximum 1 percent weight loss, tested to ASTM D4060.

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