EVA-SEAL® 30

Eva-Seal® 30 is a closed-cell cross-linked EVA foam ideal for use as a secondary waterproof seal or as a form for construction joints.

E®-POXY

Pre-Formed Expansion Joints
CSI Section 05800 & 07915

PRODUCT DESCRIPTION:

EVA-SEAL® is a pre-formed closed cell, cross-linked ethylene vinyl acetate copolymer foam. Typical applications include use as a poured in place concrete forming material and secondary seal. When used with one of our Eva-Pox Bonding Agents the seal forms a water tight seal. When used as a primary seal with an Eva-Pox Bonding Agent, the material has a limited ability to cycle within the range of 25% tension and 50% compression.

FEATURES	BENEFITS
9 psi compression deflection	Easy to handle and compress during installation
Contains Carbon black	Added U.V. resistance
Heat weldable	Allows for field customization and stage construction
Ease of installation	Labor and time savings
Closed cell	100% water tight

USES:

Application
- Noise barrier walls
- Control joints in floors
- Watertight seal between pre-cast barriers
- Cast in place filler
- Pressure relief joint
- Secondary expansion joint seal
- Forming material

Locations
- Flood control channels
- Bridges and highways
- Commercial buildings

Substrate
- Concrete
- Elastomeric Concrete
- Structured steel
- Wood
- Most other construction materials

MOVEMENT CAPABILITY

Eva-Seal 30 is capable of working in 50% compression and 25% tension for limited periods of time when installed with one of our Eva-Pox Bonding Agents.

SIZING GUIDELINES

Eva-Seal 30 is typically sized 25% larger than the joint opening but can vary from a minimum of 10% to a maximum of 35%. The amount of compression will vary due to seasonality, temperature, designed movement, and application.

TERRA-STRIP

Eva-Seal 30 is often sold with a Terra-Strip when used as a forming material with is cast-in-place concrete. Terra-Strip is a perforated line cut through the foam at a customer defined distance from the top of the seal. After the concrete is poured and set, the strip is torn off allowing for the installation of a primary liquid or pre-formed expansion joint seal. Place the Terra-Strip at least 1/2" (25mm) deeper than the depth of the primary seal to allow for variances in tear depth.

PHYSICAL REQUIREMENTS		
Test	**Test Method**	**Result**
Compression Set 25%	ASTM D3575 Suffix B	3% Set
Elongation	ASTM D3575 Suffix T	300%
Density	ASTM D3575 Suffix W	2.8 lbs/ft^3
Water Absorption	ASTM 3575 Suffix L	.02 lbs/ft^2 avg.
Tensile	ASTM D3575 Suffix T	65 psi (448 KPa)
Tear Resistance	ASTM D624	13 lbs/in (15 kg/cm)
Compression Deflection @ 25%	ASTM D3575	9 psi
Compression Deflection @ 50%	ASTM D3575	21 psi
Meets ASTM 1056 Type 2, Class B, Grade 2 & AASHTO T-42-84 Modified		

PERFORMANCE INSTALLATION ENHANCEMENT

On joint material exceeding 3 inches in width and depth, Performance Installation Enhancement or P.I.E. is recommended. When P.I.E. is added to the joint material, an additional inch of depth is added for beveling. This bevel creates a natural trapezoidal shaped product that is easier to install.

JOINT MATERIAL LIMITATIONS

Directional Changes: All directional changes in Joint Material must be done using the heat welding method. This is done by placing the Joint Material ends against a Teflon coated heating iron at 350°F (176°C) for 10 - 20 seconds. The ends are then placed together tightly and fusion bonded. Heat welds are not required for turns. For vertical turns, the maximum angle the joint material can sustain without heat welding is 115°. For horizontal turns, the maximum angle the joint material can sustain without heat welding is 135°. Heat welds will add to the aesthetics of an installation and are required for horizontal 90° turns.

Joint Variations: If a joint opening is not uniform, the limits of the joint opening for the specified seal size are as follows:

Maximum limit for increase in joint opening is 8%

Maximum limit for decrease in joint opening is 13%

If the limits stated above are exceeded, it is recommended that different size joint material be heat welded together to ensure compliance.

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Operational Temperature Range: The physical and chemical properties of the Joint Material do not alter significantly within the recommended temperature range of -94°F to 160°F (-70°C to 71°C).

Maximum Joint Opening: When the expansion joint is subjected to pedestrian or vehicular traffic, the following limitations apply:

Vehicular Traffic: Maximum Joint Opening of 6” with out a cover plate.

Pedestrian Traffic: Maximum Joint Opening of 4” with out a cover plate.

Non-Traffic Applications: Maximum Joint Opening of 38”

Applications: Material is not chemically inert and should not be placed in contact with potable water. Material is not designed for use a primary seal in an application under dynamic movement conditions.

Storage: Joint material shall be stored in an area that maintains a temperature between 50°F (10°C) and 90°F (32°C).

PLEASE BE AWARE THAT STORAGE CONTAINERS ARE NOT ACCEPTABLE MEANS OF STORAGE IF THEY EXCEED 90°F (32°C).

MANUFACTURING TOLERANCES:

The preformed Joint Material shall be the thickness and width described in the contract or on the plans within a depth tolerance of +10% to -5% and a width tolerance of +2% to -2%.

INSTALLATION PROCEDURES:

Surface Preparation:

Brush blast all concrete surfaces in direct contact with joint seal. Concrete surfaces should be free of all contaminants and laitence build up. Blow dirt or debris from the joint openings and joint surfaces with oil free compressed air. Steel surfaces must be cleaned to SSPC 10 or better. Ensure that all moisture is removed from steel surfaces prior to applying the bonding agent. Use of a propane wand is acceptable.

Seal Installation:

The manufacturers published installation procedures shall be followed at all times. Mask the areas adjacent to the joint opening. One suggestion is to use approximately 12” (300mm) of plastic sheeting and tape along edges to keep the surrounding areas clean. Be sure that the tape does not actually go into the joint opening but back approximately 1/8” (3mm) from the joint edge. Lay out joint material next to its joint opening to check for appropriate length and width. Joint should be sized 25% larger than joint opening at near neutral but never less than 10% oversized or greater than 35% oversized. Heat welds and other directional changes should be cut and made. All welds should be allowed to cool before mixing the adhesive.

Begin mixing the epoxy adhesive following the manufacturer’s specified mixing procedures and start at one end or at an intersection or corner. Apply the epoxy adhesive to both sides of the concrete substrate surfaces.

Apply enough adhesive to coat the substrate to an approximate thickness of 40mils (1mm). Apply the epoxy bonder on both surfaces working it in the direction ahead of the joint material, not more than 20’ (6m) ahead.

Apply the epoxy adhesive to both sides of the joint material. Apply enough to coat and fill the grooves on the joint material, approximately 40mils (1mm) thick. Install the coated material at the curb, intersection, or corner, where the epoxy was initially applied on the substrate.

The joint material should be installed 1/8” (3mm) below the joint edge and should not protrude above the joint edge.

Continue in the same direction as the epoxy was initially applied. DO NOT push at an angle or pull the material, as this will stretch the material and is unacceptable.

Clean the epoxy left on the surface of the material as soon as it is pushed into the desired depth. DO NOT allow the epoxy to cure before removing it. Use a clean trowel or a putty knife tilted at an angle opposite the direction of movement. DO NOT allow any epoxy bonder near any area to be cut and welded until the weld is completed otherwise the weld will not hold. Once the joint is installed and cleaned, remove the tape from the joint edges before the epoxy cures.

Allow the bonder to set, approximately 20 minutes, at 77°F (25°C), before traffic is allowed onto the joint. Slightly longer time is required during cooler weather.

When a continuous joint cannot be finished, the epoxy bonder on the substrate and also on the joint material must end evenly. Install the joint past the epoxied surfaces at least 6 to 12 inches (150 - 300mm) dry, or without epoxy. This can be pulled out later to be re-welded and the installation continued.

PACKAGING:

Eva-Seal 30 can also be custom fabricated to your specific order. Material can be fabricated to any width between 1/2” to 38” in 1/16” increments. Maximum depth of the material is 4” (6” for custom orders. Minimums apply). Typical lead time for custom fabricated orders is 3-10 business days. Lead time will vary due to order size and volume.

ALSO AVAILABLE IN SHEETS:

3" x 48" x 72"

4" x 48" x 72"

6" x 23" x 70" (Custom order, minimum applies)

MANUFACTURER’S CERTIFICATIONS:

“Manufacturer’s Certifications” are available on material.

“Manufacturer Representatives” are available for on site representation if requested; the representative will certify materials and proper installation procedures. This is required by the manufacturer in order to qualify for any warranty either expressed or implied. Please contact your sales representative for details and applicable costs.