



MIGUSEAL / METAZEAL

PREFORMED WATERPROOF SEAL FOR EXPANSION JOINTS

IMPERIAL SYSTEM PRODUCTS

Miguseal is a UV stable, pre-formed, closed-cell, low-density polyethylene foam joint seal. The material is typically used as an expansion joint seal material in bridges, commercial building, parking aprons, water treatment facilities, and industrial buildings.

Miguseal has a high maximum operating temperature of 212°F. When installed within the CEVA® Joint Systems, the material acts as a water tight expansion joint seal.

Additional features include applications in hydrostatic environments.

Miguseal can be installed in ponding/standing water and is safe for use in potable and processed water applications.

Miguseal meets ADA criteria for ground and floor surfaces as stated in the rules and regulations section of the Federal Register Volume 58 no.144, US Access Board.

FEATURES AND BENEFITS

- A. It has a Dynamic movement range of -50%, +25% & ± 50% shear. It is suitable for use in seismic applications
- B. It is waterproof and provides for water tight seals in expansion joint applications and can withstand up to 70 ft. of water head pressure in below grade structures such as basements.
- C. The Maximum operating temperature of 212°F allows it to be used in high heat applications.
- D. Its ease of installation decrease installation time resulting in labor savings.
- E. Closed cell design Creates a water tight seal.
- F. Field directional changes & heat welds makes it ideal for stage construction or segmental repairs.

TECHNICAL DATA

PROPERTIES	TEST METHOD	TYPICAL
Compression Set	ASTM D3575	SUFFIX B 2HR 9% SET
Elongation	ASTM D 3575	SUFFIX T 152 -245%
Density	ASTM 3575	1.8-2.5lbs/ft ²
Water Absorption	ASTM 3575	.03lbs/ft ²
Weatherability	ASTM G154 3000 Hours HH-F=341a	No chalking, flaking blistering, checking and cracking No Degradation
Tensile	ASTM D3575 SUFFIC T	110-130 PSI
Tear Resistance	ASTM D 3575 SUFFIC G	16 lbs/inch
Thermal Stability	ASTM D3575 SUFFIC S	5.9% Max
CONFORM TO	ASTM 1056 TYPE 2, CLASS B, GRADE 2	AASHTO T-42-84 Modified

DESIGNATED FOR USE IN

1. CONCRETE SUBSTRATE
2. ELASTOMERIC CONCRETE
3. STEEL
4. WOOD
5. AND MOST OTHER CONSTRUCTION MATERIALS

MOVEMENT CAPABILITY

Miguseal is capable of functioning between 50% compression and 25% tension as well as handling up to 50% horizontal or vertical shear movement.

SIZING GUIDELINES

Miguseal is typically sized 25% larger than the joint opening. The amount of compression will vary due to seasonal temperature and designed movement of the joint. Please contact your sales representative for assistance.

ENGINEERED SURFACE PROTECTION

CEVA® Joint materials come manufactured with Engineered Surface Protection (E.S.P.) grooves along the sides of the foam which increase the surface area of the contact surface to the substrate resulting in enhanced bonding performance. These E.S.P. grooves are ¼" - ½" apart (6mm – 13mm) and approximately 1/8" deep x 1/8" (3mm x 3 mm) wide running the entire length of the joint.

PERFORMANCE INSTALLATION ENHANCEMENT
For joint openings exceeding 3 inches in width and depth, Performance Installation Enhancement or P.I.E. is recommended. P.I.E. is the beveling of the bottom edge of the joint, creating a trapezoidal shape which is easier to install into the joint opening

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 pushed tightly together resulting in a fusion bond.

Heat welds are not required for all 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 strongly recommended for all 90° turns.

Joint Variations: If a joint opening is not uniform, please contact your local sales representative for sizing assistance.

Skews:

Miguseal does not have skew limitations.



IMPERIAL SYSTEM PRODUCTS

OPERATIONAL TEMPERATURE RANGE:

The physical and chemical properties of the joint material do not alter significantly within the recommended range of -94°F to 212°F (-70°C to 100°C).

MAXIMUM JOINT OPENING:

When the expansion joint is being used to support pedestrian or vehicular traffic, the use of a cover plate should be considered on joint openings larger than 4".

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

STORAGE:

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

INSTALLATION PROCEDURES

Surface Preparation:

Brush and blast all concrete surfaces in direct contact with joint seal. Concrete surfaces should be free of all contaminants and latent build up.

Blow or vacuum 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 BONDER 1

APPLICATION:

The manufacturer's 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.

Lay out joint material next to joint opening to check for appropriate length and width.

Joints should be sized at a minimum of 25% larger than joint opening at near neutral but never less than 10% 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 BONDER 1 adhesive following the manufacturer's specified mixing procedures and start at one end or at an intersection or corner.

Apply the Bonder 1 adhesive to both sides of the substrate surfaces. Apply enough adhesive to coat the substrate to an approximate thickness of 40 mils (1mm).

It is not recommended to apply BONDER 1 more than 20' (6m) ahead in order to avoid curing before the joint material is inserted into the opening.

Next, apply BONDER 1 to both sides of the joint material (sides with the E.S.P. grooves).

Apply enough to coat and fill the grooves on the joint material, approximately 40 mils (1mm) thick.

Install the coated material at the curb, intersection, or corner, where Bonder 1 was initially applied on the substrate.

The joint material should be recessed 1/8" (3mm) below the joint edge and should not protrude above the joint opening. Continue in the same direction as BONDER 1 was initially applied.

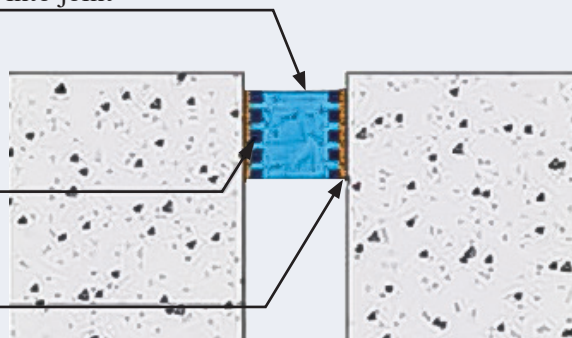
MANUFACTURERS CERTIFICATIONS

Available upon request

Recess MIGUSEAL 3mm into joint

MIGUSEAL grooves

BONDER 1 is applied to MIGUSEAL and concrete



DETAIL

Distributor :
IMPERIALSEALS UK PTE LTD
IMPSEAL SDN BHD

Tel : +65 67847811 | +65 96791811
Email : donquek@imperialseals.com.sg | info@imperialseals.com.sg
Tel : +60 07 5226817 | +60 018 904 7883 | +65 96791811
Email : sales@imperialseals.com | donquek@imperialseals.com.sg