

# TECHNICAL DATA- EP Sealant

## ONE COMPONENT ELASTOMERIC POLYURETHANE SEALANT

### PRODUCT DESCRIPTION:

EP SEALANT is a one component non-sag high performance moisture curing gun-grade elastomeric polyurethane sealant that typically requires no priming or mixing to bond to many types of substrates such as concrete or masonry. EP SEALANT is suitable for use in water immersion service. The product is supplied in individual tubes for use with typical caulking guns with a suitable thrust ratio.

### RECOMMENDED FOR:

Recommended for expansion joints, panel walls, precast units, aluminum and wood window frames, roofing, fascia, parapets, vinyl siding, waterwells and manholes, spillways, storm drains and many other uses.

### NOT RECOMMENDED FOR:

Not recommended for applications for all acid and chemical exposure areas.

### SOLIDS BY WEIGHT:

96% +/- 2%

### VOLATILE ORGANIC CONTENT:

35 grams per liter

### COLORS AVAILABLE:

Black, white, tan and limestone.

### RECOMMENDED THICKNESS:

Minimum 1/4" Joint depth, with the depth to be at least half the joint width. Maximum depth is 1/2".

### COVERAGE:

A cartridge is 300ml (10.1 fl oz)

(Approximate coverage rate for 1 tube @ 1/2" wide by 1/4" deep would be approximately 12 feet)

### PACKAGING

24 cartridge cases (300ml per cartridge)

### CUBIC INCHES

18 (per cartridge)

### MIX RATIO:

Ready to use without mixing – one component

### SHELF LIFE:

1 year in unopened containers properly stored.

### HARDNESS:

25-30 Shore A (ASTM C661)

### TEAR STRENGTH:

50 pli (ASTM D1004)

### TENSILE STRENGTH:

350 psi (ASTM D412)

### ELONGATION AT BREAK:

800% (ASTM D412)

### BOND DURABILITY:

aluminum & concrete—passes 35% movement (ASTM C719)

### ARTIFICIAL WEATHERING:

Xenon arc @ 3000 hours – no surface cracking (ASTM G26)

Xenon arc-@ 250 hours – passes (ASTM C793)

### CRACKING AND CHALKING:

After heat aging – none (ASTM C792)

### ADHESION IN PEEL:

30 pli (ASTM C794)

### WATER IMMERSION:

Passes 10 weeks with movement cycling at 122°F (ASTM C1247)

### WEIGHT LOSS:

3% after heat aging (ASTM C792)

### DOT CLASSIFICATIONS:

“not regulated”

### COMPLIANCES:

\*ASTM C920, Type S Grade NS, Class 35, Use NT, M,A,G, 0", and 1

\*Federal Specification TT-S 00230C, Type II, Class A

\*Corps of Engineers CRD-C-541, Type II, Class A

\*Canadian Specification CAN/CGSB-19, 13-M87 classification MCG-2-25-A-N, No. 81026

### CURE SCHEDULE: (75°)

recoat or topcoat..... 24 hours

functional.....3 days

full cure (normal use)... 1 week

Lower temperatures and humidity will extend curing time.

### APPLICATION TEMPERATURE:

40-90 degrees F (service temperature range -40°F to 180°F)

### COMBATIBILITY RESTRICTIONS:

Do not allow uncured product to come into contact with alcohol based materials or solvent. Do not allow contact with oil based caulking, uncured silicone sealants, polysulfides, or oil, asphalt and tar.

### PRIMER:

In some applications a primer may be needed to achieve the best bond.

### TOPCOAT:

Can be topcoated. However, pursuant to accepted industry standards, using rigid paints or coatings over flexible sealants can result in loss of adhesion of the applied coating due to potential movement of the sealant. If painting or coating is desired, it is required to conduct an on site test to determine compatibility and adhesion.

### LIMITATIONS:

\*When the product is to be used in areas subject to continuous water exposure, cure for 21 days at 70°F and 50% relative humidity. Do not use in swimming pools or other submerged conditions where the sealant will be exposed to strong oxidizers. Avoid immersion service in temperatures above 120°F.

\*Do not apply over freshly treated wood. Wood must be weathered for at least six months.

\*Substrates such as copper, stainless steel and galvanized may require a primer. Adhesion testing is recommended for any questionable substrate.

\*UV exposure or environmental conditions such as high humidity, chemical exposure or exposure to certain types of light such as sodium vapor lighting may discolor the sealant.

\*Colors may vary from batch to batch.

\*Substrate temperature must be 5°F above dew point.

\*All new concrete must be cured for at least 30 days prior to application

\*See reverse side for application instructions.

\*Test data based on neat resin.

\*Physical properties are typical values and not specifications.

\*See reverse side for limitations of our liability and warranty.

## INSTRUCTIONS (EP SEALANT)

1) **PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature at least 24 hours before using. Continuous storage should be between 50-70°F. Store away from heat and direct sunshine. Storing at elevated temperatures will reduce the shelf life.

2) **SURFACE PREPARATION:** All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. We recommend that all loose concrete, previous joint compound, oil, grease, asphalt, tar, wax, rust or other foreign material be removed to leave a clean sound joint. For concrete, stone or other masonry, clean by sand blasting or wire brushing to expose a sound surface. Wood should be weathered, clean and sound. Scrape away loose paint to bare wood. Any coating that cannot be removed from the wood must be tested to verify adhesion. On metal, remove scale, rust and coatings to expose a bright white surface. Remove any protective coatings, chemical residue or films on the metal. Remove any other protective coatings or finishes that could interfere with adhesion.

3) **PRIMER:** This product is generally considered a nonpriming sealant. However, some surfaces such as copper, stainless steel, Kynar and galvanized may require the use of a suitable primer. An adhesion test is recommended for any other questionable substrate. It is the user's responsibility to check the adhesion of the cured sealant on typical test joints at the project sight before and during the application.

4) **PRODUCT MIXING:** Normally no mixing is required.

5) **PRODUCT APPLICATION:** This sealant comes ready to use. Apply with a professional caulking gun with an 18:1 thrust or other suitable equipment. Do not open cartridges until preparatory work has been completed. The number of joints and the joint width should be designed for a maximum of +/- 25% movement. Fill joints from the deepest point to the surface by holding a properly sized nozzle against the back of the joint. Dry tooling is recommended. Do not use soapy water when tooling. Proper tooling results in the correct bead shape, a neat joint and maximum adhesion. For roof tile applications, apply a bead of sealant sufficient to make bond between two tiles on the upper surface of the down slope tile. Install the upslope tile and press into the sealant bead to ensure good contact between the sealant and both tiles. In deep joints, the sealant depth must be controlled by closed cell backer rod or soft backer rod. Where the joint depth does not permit the use of a backer rod, a bondbreaker (polyethylene strip) must be used to prevent three point bonding. When using a backer rod, compress and roll it into the joint channel without stretching it lengthwise. Closed cell backer rod should be about 1/8" larger in diameter than the width to allow for compression. Soft backer rods should be 24% larger in diameter than the joint width.

Approximate Linear feet per Cartridge

Joint Depth	Joint Width						
	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
1/4"	25.7 lineal feet	17.1 lineal feet	12.8 lineal feet	10.2 lineal feet	n/a	n/a	n/a
3/8"	n/a	n/a	n/a	6.8 lineal feet	5.7 lineal feet	4.8 lineal feet	4.3 lineal feet
1/2"	n/a	n/a	n/a	n/a	4.3 lineal feet	3.7 lineal feet	3.2 lineal feet

6) **RECOAT OR TOPCOATING:** No recoating or topcoating is necessary. However, if you opt to topcoat the applied joint compound, allow it to cure before topcoating. It is not necessary to prime over the joint compound prior to topcoating the joint compound. Many epoxies and urethanes can be used. In some instances, especially when excessive expansion joint movement is involved, topcoats may chip, crack or disbond. However, most epoxy or topcoat products will adhere to the joint compound very well.

7) **CLEANUP:** Immediately after use, clean equipment with xylene or other suitable solvents. Remove cured sealant by cutting with a sharp edged tool. Remove thin films by abrading.

8) **RESTRICTIONS:** Restrict the use of the area where the sealant has been applied until the product is sufficiently cured. Do not apply when rain is imminent or freezing temperatures are expected.

### NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

*We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABILITY OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.*