ELASTO-SEAL 227

POLYSULFIDE JOINT SEALANT

1. **PRODUCT NAME**

   ELASTO-SEAL 227

   ELASTO-SEAL 227 is a two-part, self leveling or gun-grade, polysulfide sealant , which effectively seals joints that are subject to structural or thermal movement, as well as non-moving joints, against infiltration of water and dirt.

2. **MANUFACTURER**

   PACIFIC POLYMERS INTERNATIONAL, INC.
   12271 Monarch Street
   Garden Grove, CA 92841
   714/898-0025
   FAX (714) 898-5687

3. **PRODUCT DESCRIPTION**

   Composition: Polysulfide based joint sealant.

   Basic Uses: For use in sealing reservoirs, dams, canals culverts, and flood control channels. Also used for sealing curtain-wall panels, tilt-up panels, window glazing, flashing and metal setting. Also, for all joint-seal applications, such as expansion and contraction joints in shopping centers, sidewalks or other traffic areas.
   It will effectively prevent water from entering the sealed joints and thereby eliminate erosion of the soil underneath the slabs, particularly areas which are exposed to water frequently, such as swimming pool decks and around planters. All coping joints and deck joints should be sealed. In adobe soil areas, unsealed joints may cause swelling of the soil and subsequent buckling and cracking of the concrete slab.
   ELASTO-SEAL 227 maintains a low modulus of extension even after prolonged exposure to the elements. This prevents adhesive and cohesive failures which often occur when a caulking compound hardens excessively with aging.

   Limitations: The **ELASTO-SEAL 227** is preferred for joints that are subjected to traffic, or severe movement shortly after sealant installation, and for joints of such large dimension that ELASTO-SEAL 230 would require too much time to cure throughout. Primers may be necessary for certain applications.

   Color: Concrete Grey, White, Tan

   Sizes: Available in 1 1/2 and 4 1/2 gallon kits. Weighs 12 lbs. per gallon (5.4 kg/gallon).

   Standards: Federal Specification TT-S-227e and also USASI Specification A116.1-1967 Class A and B, A.S.T.M. C-920 type M, grade P, NS, class 25.

   WARNINGS AND HAZARDS:
   Before using the products, always refer to MSDS for important warnings and safety information. Use only in areas with adequate ventilation. Avoid breathing vapors. Keep away from heat and flame. Avoid contact with eyes and skin. In the event of skin contact, remove immediately and wash with warm, soapy water. Wear suitable eye protection. Always wash hands before eating.

4. **TECHNICAL DATA**

   (See the following page for Technical Data and Chemical Resistance)

5. **INSTALLATION**

   Joint Design: Suitable for all properly designed joints following accepted engineering practices. Joint width must be a minimum of 4 times the anticipated movement.

   Surface Preparation: All joints must be absolutely clean. For concrete, sandblasting is recommended. All curing compounds, old caulks, grease, waterproofing compounds, etc., must be removed. For non-porous surfaces such as glass, metal, etc., cleaning with M.E.K. or Toluene is recommended. Polyethylene rod or polyurethane foam is recommended as a joint-filler and back-up material. Fillers treated with bituminous products, grease or oil, should not be used. Where present, they must be removed or separated by vinyl tape or polyethylene film. Consult Manufacturer for primer recommendations on certain surfaces or special applications.

   Application: Apply by caulking gun, hand or pressure type, or pour from container. Bulk sealant can be applied by pumping equipment, trowel or putty knife. Press firmly into joint to assure good contact.

6. AVAILABILITY AND COST

ELASTO-SEAL 227 is supplied through building material dealers. Prices vary with quantity and packaging. Quotations are made upon request.

These products are designed and manufactured to be installed by professional installers familiar with surface preparation and application procedures. All others should consult a professional installer; those who choose to install these products without professional assistance do so at their own risk.

7. PRODUCT WARRANTY

Satisfactory results depend not only upon quality products but also upon factors beyond our control; methods of application and site conditions are examples of such factors and can affect product performance. This warranty consequently extends only to products installed in strict accordance with the manufacturer's specifications. It is the users responsibility to satisfy himself, by his own information and tests, of the suitability of the product for his own intended use; user assumes all risk and liability resulting from his use of the product. The substrate to which the product is applied must be sound structurally and otherwise. Structural or substrate failures or imperfections resulting in damage to or failure of the product are not covered by this warranty. Since the use of the product is beyond the control of the manufacturer, the manufacturer assumes no liability for misapplication and misuse of the product.

This warranty does not cover consequential damages, nor does it cover the labor attendant to replacing product in the event of a product failure. The warranty only extends to replacement of the product itself.

All products proven to be defective in manufacture ill be replaced at no charge. Since the use of these products is beyond our control we cannot assume any risk or liability for results obtained, nor can we accept damages in excess of the purchase price of these products.

8. MAINTENANCE

If **ELASTO-SEAL 227** is damaged, and the joint has not been contaminated, it can be repaired by cutting out that part and resealing it with **ELASTO-SEAL 227**.

9. TECHNICAL SERVICES

All of the latest updates to product data and specifications are available at the Pacific Polymers International, Inc. website at www.pacpoly.com. Since product data and specifications change, it is the users responsibility to make certain the most current versions of product data and specifications are being used.

Technical assistance can be obtained by contacting:

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WIDTH OF JOINT (Linear Feet Per Gallon)

DEPTH OF JOINT	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
1/4"	308	205	154	123	102	88	77
3/8"	……	136	102	82	68	58	51
1/2"	…….		77	61	51	44	38
5/8"	……..			41	39	35	30
3/4"	……			34	29	25	
7/8"	……..				25	22	
1"	……					19	

WIDTH OF JOINT IN METRIC MEASUREMENT (Linear Meter Per Liter)

DEPTH OF JOINT IN MILIMETERS	Mm	6.4	9.5	12.7	15.9	19	22.2	25.4
	6.4	24.8	16.5	12.4	9.9	8.2	7.1	6.2
	9.5	…….	10.9	8.2	6.6	5.5	4.7	4.1
	12.7	……..		6.2	4.9	4.1	3.5	3.0
	15.9	……..			3.9	3.3	2.8	2.4
	19	……			2.7	2.3	2.0	
	22.2	……				2.0	1.8	
	25.4	……..					1.5	

ELASTO-SEAL 227

PROPERTY	TEST METHOD	RESULTS
Consistency	Fed. Spec. TT-S-227e	
Type I		Self-Leveling/Pourable
Type II		Gungrade/Non-Sag
Mixing Ratio (A/B) by Volume	---	
Type I		3:1
Type II		12:1
Weight per Gallon	---	
Type I - A-Component		13.56 pounds (6.15 kg)
B-Component		14.31 pounds (6.4 kg)
Type II- A-Component		14.11 pounds (6.4 kg)
B-Component		11.91 pounds (5.4 kg)
Potlife at 77^{O}F (25^{O}C)	---	2 hours
Tackfree Time at 77^{O}F (25^{O}C)	ASTM C-920	12 hours
Cure Time at 77^{O}F (25^{O}C)	---	24 hours
Tensile Strength ASTM D-412	80 P.S.I.	
% Elongation	ASTM D-412	550%
Peel Strength on Concrete	ASTM C-794	16 P.L.I. cohesive failure
Hardness (Shore A)	ASTM D-2240	20±5
Temperature Service Range	---	-40^{O}F to +175^{O}F -40^{O}C to +79^{O}C
V.O.C. Content	ASTM D-2369-98	0.0 gr./liter

ELASTO-SEAL 227 *TWO COMPONENT POLYSULFIDE*
The results are based on seven day submersion

Solution	*Result*	*Solution*	*Result*
Aluminum Sulfate Solution 50%	**NE**	**Hydrofluoric Acid 10%**	**NE**
Ammonium Chloride Solution 50%	**NE**	**Jet Fuel**	**NE**
Ammonium Hydroxide Solution 28%	**NE**	**Kerosene**	**NE**
Ammonium Perchlorate 15%	**NE**	**Linseed Oil**	**NE**
Ammonium Perchlorate 50%	**NE**	**Lubricating Oils**	**NE**
Amyl Alcohol	**NE**	**Magnesium Chloride Solutions 20%**	**NE**
Fuel D	**NE**	**Magnesium Hydoxide Solutions 30%**	**NE**
Barium Hydroxide 10%	**NE**	**Methanol**	**NE**
Borax Solutions 25%	**NE**	**Mineral Spirits**	**NE**
Borax Acid Solutions 20%	**NE**	**Motor Oil 10W/40**	**NE**
1-4 Butanediol	**NE**	**Naptha VM&P**	**NE**
n-Butyl Alcohol	**NE**	**Napthalene Oil**	**NE**
Calcium Chloride Solutions 50%	**NE**	**Oleic Acid**	**NE**
Calcium Hydroxide 20%	**NE**	**Oxalic Acid 20%**	**NE**
Calcium Hypochlorite 50%	**NE**	**Paraffinic Oil**	**NE**
Copper Sulfate Solutions 20%	**NE**	**Potassium Hydroxide Solutions 25%**	**NE**
Cyclohexane	**NE**	**Propylene Glycol**	**NE**
Dibutyl Carbitol	**NE**	**SAE 10 Oil**	**NE**
Diethylene Glycol	**NE**	**Sodium Bicarbonate Solutions 50%**	**NE**
Ethyl Alcohol	**NE**	**Sodium Chloride Solutions 25%**	**NE**
Ethylene Glycol	**NE**	**Sodium Hydroxide 50%**	**NE**
Ferrous Sulfate 10%	**NE**	**Sodium Sulfide 25%**	**NE**
Fuel Oil/Diesel Fuel	**NE**	**Stearic Acid 20%**	**NE**
Gasoline	**NE**	**Sulfuric Acid 20%**	**NE**
Gasohol	**NE**	**Transmission Fluid**	**NE**
Heptane	**NE**	**Urea 10%**	**NE**
Hexane	**NE**	**Water ($22^{O}C$, $72^{O}F$)**	**NE**
Hydrochloric Acid 20% Cold	**NE**	**Zinc Chloride 10%**	**NE**
Hydrofluoric Acid 5%	**NE**		

***NE = No effec**