



Pacific Polymers

A Division of ITW

ELASTO-THANE 920

LOW MODULUS, ISOCYANATE FREE POLYUREA JOINT SEALANT

1. PRODUCT NAME

ELASTO-THANE 920 is a low modulus, polyurea sealant, which cures to a firm, flexible, tear-resistant rubber. It is highly resilient and has excellent recovery characteristics after extended periods of compression or elongation.

Type I – Self-Leveling
Type II – Gungrade

Both Type I and Type II are 100% V.O.C. Free materials.

2. MANUFACTURER

PACIFIC POLYMERS (A Division of ITW)
12271 Monarch Street
Garden Grove, CA 92841
Tel: 1-800-888-8340
Fax: 714-898-5687

3. PRODUCT DESCRIPTION

Composition: The **ELASTO-THANE 920** is a two-component, low modulus, polyurea based joint sealant designed to tolerate significant joint movement, up to $\pm 25\%$. Unlike conventional polyurethane sealants, both components are insensitive to moisture, therefore, the containers may be opened and re-sealed without the material setting up. The **ELASTO-THANE 920** contains no solvents, therefore, contains no strong odors. **ELASTO-THANE 920** sealant consists of an "A" Component (Base), "B" Component (Catalyst), and a color pak.

Basic Uses: The **ELASTO-THANE 920** is a general purpose sealant providing a flexible, durable, weathertight seal for all types of building joints, such as expansion joints in masonry and metal curtain walls, perimeter joints of sashes, panels and doors, water reservoirs, etc.

Limitations: The **ELASTO-THANE 920** is not recommended for:

-areas subject to harsh chemical immersion.

-special architectural finishes without prior testing.

Joints that are subjected to water immersion, such as reservoirs, canals, water tanks, ponds, etc., may be caulked if the Elasto-Poxy Primer is used to prime the joints prior to installing the sealant.

The **ELASTO-THANE 920** is recommended for expansion joints subjected to severe movement, where a low modulus sealant is required.

For Optimum Performance:

*Mix complete kits; do not attempt to mix partial kits.

*Use the Elasto-Poxy Primer for joints which will be continually submerged in water.

*Care should be taken not to puncture the backerrod during installation.

*Three-sided adhesion must be avoided.

Packaging:

Pre-measured 1.5 gallon kits, which includes the color pak.

The "A" Component is packaged in a 2 gallon pail.

The "B" Component is packaged in 8 oz. flip top cans.

The Color Pak is packaged in 8 oz. pull-top paks.

Colors: 42 Standard colors. Special colors are available with minimum quantity orders.

Sizes: Available in 1.5 gallon kits.

Net weight/gal: 12.75 lbs.

Shelf Life: 1 year, minimum, when stored indoors at 77°F (25°C) and 50% R.H.

Test Standards:

*Federal Specification TT-S-00227E, Type I and Type II, Class A

*Corps of Engineers CRD-C-506-72

*ASTM C920-87, Grade NS, Class 25

*ELASTO-THANE 920 meets or exceeds the test requirements of ASTM C-1247 for sealants exposed to continuous immersion in liquids.

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 Page 4)**5. INSTALLATION****Joint Design:**

A. The spacing and number of joints, as well as the joint width, should be designed to limit total joint movement to $\pm 25\%$.

B. The depth of the sealant, including its shape, should be controlled by using acceptable joint fillers or backing rod materials. Polyethylene rod or polyurethane foam is recommended as a joint-filler and back up material. Fillers treated with bituminous products, grease or oil, must not be used. Where present, contaminants must be completely removed or separated by vinyl tape or polyethylene film.

C. A bond breaker tape, or polyethylene strip, should be used in shallow joints, which do not allow the use of a backerrod. Either a backerrod or bond breaker tape must be used to prevent three-sided adhesion.

D. Suitable for all properly designed joints following accepted engineering practices. Joint width must be a minimum of 4 times the anticipated movement. Joint sealant depth should not exceed $\frac{1}{2}$ the width of the joint.

Surface Preparation:

A. All joints must be absolutely clean and dry. For concrete joints, sandblasting is recommended. All curing compounds, old caulks, grease, waterproofing compounds, wax, rust, paint, curing compounds, loose debris, etc. must be removed.

B. For non-porous surfaces such as glass, metal, etc., cleaning with M.E.K is recommended. Do not use Toluene, as it leaves an oily surface.

Priming:

A. The **ELASTO-THANE 920** is a self-priming sealant, therefore, a primer is not normally required.

B. However, for submerged applications or damp joints, prime all joints with Elasto-Poxy Primer prior to installation. The Elasto-Poxy Primer must dry for approximately 1 hour

at 77F and 50% R.H. before installing the **ELASTO-THANE 920**.

C. The contractor should test the adhesion of the sealant at the job site in order to verify that proper adhesion is being obtained.

Mixing:

A. The **ELASTO-THANE 920** is a two-component material, plus a separate color pak, and must be mechanically mixed prior to use.

B. The "A" Component, "B" Component, and color pak are all pre-proportioned, at the factory, which eliminates the need for job site measuring. Mix complete kits only.

C. Empty entire contents of "B" Component and color-pak into the "A" Component pail. Mix thoroughly for 5 minutes, using a low speed drill and Jiffy mixing blade. Avoid whipping air into the material.

D. During the mixing procedure, scrape the bottom and the sides of the container to ensure that the "A" Component, "B" Component, and color pak are thoroughly mixed, and that the color is uniform.

Application:

A. After the **ELASTO-THANE 920** has been completely mixed, the sealant must be drawn into a bulk caulking gun, or the bulk caulking gun may be filled using a "follower plate" device.

B. Apply **ELASTO-THANE 920** continuously using sufficient pressure to fill the entire width and depth of the joint, from the bottom up.

C. The tooling device may be wiped with a solvent, such as Xylene, to achieve a smooth, properly tooled joint.

For Horizontal Joints:

The **ELASTO-THANE 920** Type I, Pourable may be used on horizontal joints where the slope does not exceed 2%. A firm backing material is required beneath horizontal joints in order to help the sealant resist puncturing from high heel traffic.

6. AVAILABILITY AND COST

ELASTO-THANE 920 is supplied through building material dealers. Prices vary with quantity and packaging. Quotations are made on 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 will 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-THANE 920** is damaged and the joint has not been contaminated, it can be repaired by cutting out that part and re-sealing it with **ELASTO-THANE 920**.

9. TECHNICAL SERVICES

All of the latest updates to product data and specifications are available at the Pacific Polymers 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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4. TECHNICAL DATA – ELASTO-THANE 920

PROPERTY	A.S.T.M. C-920 REQUIREMENT		RESULTS	
	Grade P, Type I	Grade NS, Type II	Grade P, Type I	Grade NS, Type II
Pot Life @77°F	2 hrs.	3 hrs.	Pass	Pass
Rheological Properties	No Deformation	3/16" max. flow	Pass/None	Pass/None
Extrusion Time	20 secs. max.	45 secs. max.	N/A	38 secs.
Hardness (Shore A)	Between 15 and 50	Between 15 and 50	20 +/-5	20 +/-5
Hardness after Heat Aging	<50A	<50A	28A	30A
Effect of Heat Aging	10% weight loss max. No Cracking		1.8% Pass	2.3% Pass
Tackfree Time	72 hrs. max.	72 hrs. max.	Pass	Pass
Stain and Color Change	No Stain on Mortar		Pass	Pass
Durability	1.5 sq. in. max. total bond loss			
Glass			No Bond Loss	No Bond Loss
Aluminum			No Bond Loss	No Bond Loss
Mortar			No Bond Loss	No Bond Loss
Adhesion in Peel	5 PLI minimum 25% adhesive loss max.			
Glass			No Loss/16PLI	No Loss/18PLI
Aluminum			No Loss/15PLI	No Loss/17PLI
Mortar			No Loss/20PLI	No Loss/25PLI
Adhesion in Peel after UV exposure through glass	5 PLI minimum 25% adhesive loss max.		No Loss/14PLI	No Loss/16PLI

Effect of Accelerated Weathering	No surface cracking	Pass	Pass
V.O.C. Content	ASTM D-2369-98	0.0 gr./liter	0.0 gr./liter
Service Range		-40° F to 170° F	-40° F to 170° F
Modulus of Elasticity		70 P.S.I.	70 P.S.I.
	@25%	100 P.S.I.	100 P.S.I.
	@50%	135 P.S.I.	135 P.S.I.
	@100%	300+/-10%	300+/-10%
Tensile Strength (psi)	ASTM D-412	350+/-10%	350+/-10%
Percent Elongation (%)	ASTM D-412		

Coverage Rate

WIDTH OF JOINT

	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	
DEPTH OF JOINT	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
Linear Feet Per Gallon of ELASTO-THANE 920								

Chemical Resistance (7 days immersion test @ 75°F)

PRODUCT: ELASTO-THANE 920

<u>REAGENTS</u>	<u>RESULT</u>
Motor Oil	NE
Hydraulic Fluid	NE
Brake Fluid	NR
Coolant	NE
Detergent	NE
Common Household Cleaners	NE
Distilled Water	NE
Salt Water	NE
Sodium Chloride	NE
Magnesium Chloride	NE
5% Sulfuric Acid	NE
5% Hydrochloric Acid	DISCOLORATION
10% Sodium Hydroxide	NE
10% Potassium Hydroxide	NE
Skydrol	NR
Jet Fuel	SWELLING/SOFTENS
Gasoline	SLIGHTLY SOFTENS/REGAINS HARDNESS AFTER DRYING
Diesel Fuel	NE
Beverages	NE
Soft drinks	NE
Beer	NE
Coffee	NE
Tea	NE
Bleach	SOFTENS AFTER 72 HRS/DISCOLORATION
Xylene	SWELLING/SOFTENS
Toluene	SWELLS/DAMAGE
Mineral Spirit	SLIGHT SOFTENING/REGAINS HARDNESS AFTER DRYING
MEK	SWELLS/DAMAGE

Note: NR – Not Recommended
NE – No effect