



ELASTO-THANE 200

JET FUEL-JET BLAST RESISTANT JOINT SEALANT

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION:

Pacific Polymers® ELASTO-THANE 200 is a two-part, self-leveling jet fuel resistant polyurethane joint sealant. It is cold applied and cures to a soft, flexible tear-resistant rubber. It is highly resilient and has excellent recovery characteristics after extended periods of compression or elongation.

BASIC USES:

For sealing joints in airfield runways, parking aprons, cargo areas, and other areas where joints may be subjected to fuel, and oil spillage.

LIMITATIONS:

The **B-Component** is moisture reactive. Containers that have been opened must be used immediately. Prolonged exposure to moisture or excessive humidity can result in surface skinning or thickening of the material.

SPECIFICATION COMPLIANCE:

Pacific Polymers® ELASTO-THANE 200 is manufactured to comply with the following:

Federal Specification SS-S-200E British Standard BS 5212, Table 1, Type F
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ADVANTAGES:

- Available in two versions,
 - Hand-Mix (Type-H)
 - Machine-Mix (Type-M)
- Durable and Flexible
- Flexible at low temperatures
- Fast return to service after application
- Self-Leveling, hence tooling not required

WARNINGS AND HAZARDS:

- Before using the products, always refer to SDS 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 **material** immediately and wash with warm, soapy water. If irritation persist, consult physician.
- Wear suitable eye protection.
- Always wash hands before eating, drinking and/or smoking.

TYPICAL PROPERTIES:

PROPERTY	TYPICAL RESULTS
Mix Ratio	1:1
Pot Life @75°F (25°C) Type H Type M	1 hour 5 minutes
Color	Black
Shore "A" Hardness (ASTM D2240)	8 +/- 4A
Cure-Time at 77°F (25°) Type H Type M	48 - 72 hours 24 hours
Tack Free Time at 77°F (25°) Type H Type M	12-16 hours 1 hour
Viscosity: A Component B Component	2000 - 10000 cps 2000 - 5000 cps
V.O.C.	69 g/L, EPA Method 24
Flash Point	>150°F (51.5°C)
Weight per Gallon: A Component B Component	9.8 +/- 0.4 lbs/ gal 8.4 +/- 0.4 lbs/ gal
Elongation at Break (ASTM D412) Tensile Strength (ASTM D-412) Modulus (ASTM D412) Tear Strength (ASTM D624)	700 - 800% 125 +/- 20 psi 20 +/- 5 psi 20 lb/in
** The shelf life for an unopened container stored at temperatures between 60°F (15.6°C) and 95°F (35°C) is 1 year from date of manufacture. Store out of direct sunlight in a cool, well-ventilated area. Avoid storing container directly on the floor or against an outside wall	

INSTALLATION:

- Suitable for all properly designed joints following accepted engineering practice.
- Joint width should be a minimum of 4 times the anticipated movement.

Surface Preparation:

- Concrete joints must be accurately formed.
- Joint must be dry, sound, clean and free from dirt.
- Concrete joints must be primed (Use DECK-THANE Primer or Elasto-Poxy VOC Primer).
- Sandblasting is recommended for concrete substrates to achieve the desired profile for bonding. Remove all dust and laitance after sandblasting and/or grinding the concrete. Avoid polishing the joint sides if grinding is required.
- Use dry compressed air (free of oil) to blow off any debris from grinding and blasting.
- All curing compounds, old caulks, grease, waterproofing compounds, etc., must be removed.

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11/4/2016

- Polyethylene rod or polyurethane foam is recommended as a joint-filler and backup 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.

APPLICATION:

Mixing:

- Pre-mix/Stir the Resin Component (A-Part) lightly without entrapping air pockets, prior to usage to make sure a homogeneous mixture is achieved. Do not overmix, overmixing could cause the components to foam. For ease of application, condition the components to at least 70°F to 75°F (21°C to 23.9°C). The Resin component (A-Part) should be warmed slightly higher in order to get the viscosity closer to the ISO Component (B-Part). Prior to application, determine the working condition of the mixing machine to make sure volume ratios are correct.

Hand-Mix Version (Type-H):

- Type-H version comes in pre-weighed 1-gallon containers. Empty both components completely into a suitable (larger) container. Drill mix using a jiffy mixing paddle at 400 – 600 rpm for 3 to 5 minutes. We suggest scraping the wall of the mixing container to achieve a homogeneous mixture. Apply the mixed components into the primed joints (Use **DECK-THANE Primer** or **Elasto-Poxy Primer VOC**). Avoid overfilling the joints. Do not aerate the mixing process to help prevent blisters, bubbles and/or pinholes. The joints should be filled so that the finished level of the sealant is slightly below the trafficked surface. Ensure that expansion joint filler is tightly packaged in the joint.

Machine-Mix Version (Type-M):

- Type-M version must be applied by a special plural component mechanical mixer which properly proportions the material.
- Extrude the mixed sealant into the joint at suggested width and thickness. Avoid overfilling the joints. The joints should be filled so that the finished level of the seal is slightly below the trafficked surface. Ensure that expansion joint filler is tightly packaged in the joint.

TEMPERATURE CONSTRAINTS:

- Minimum application temperature is 40°F (4°C) and rising and more than 5°F above dew point.
- For best results, conditioning the components between 65°F - 80°F (13°C - 26°C) is suggested.
- Contact Technical Service when substrates are over 90°F (32°C) or under 40°F (4°C).
- Avoid application when inclement weather is present or imminent.
- Do not apply to damp, wet, or contaminated surface

MAINTENANCE:

If **ELASTO-THANE 200** is damaged, and the joint has not been contaminated, it can be repaired by cutting out the affected area and resealing it. The joint shall require sanding and/or grinding to remove the existing sealant completely to achieve proper adhesion.

AVAILABILITY AND COST:

- **ELASTO-THANE 200** is supplied through building material dealers.
- 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.
- **SIZES:**
 - Hand-Mix (Type-H): 2 gallon kit
 - Machine Mix (Type-M): 10 gallon kit & 110 gallon kit

TECHNICAL SERVICE

All of the latest updates to product data and specifications are available at www.pacpoly.com. Since product data and specifications change, it is the user’s responsibility to make certain the most current versions of product data and specifications are being used.

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 USER’S 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.

Complete technical information is available from
ITW Polymers Sealants North America, Inc.

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11/4/2016

Table 1: Linear Feet Per Gallon (meter/ liter) of ELASTO-THANE 200

		Width of Joint, inches (mm)						
Depth of Joint, inches (mm)		¼" (6.4mm)	3/8" (9.5mm)	½" (12.7 mm)	5/8" (15.9 mm)	¾" (19 mm)	7/8" (22.4 mm)	1" (25.4 mm)
	¼" (6.4mm)	308 (24.8)	205 (16.5)	154 (12.4)	123 (9.9)	102 (8.2)	88 (7.1)	77 (6.2)
	3/8" (9.5mm)	.....	136 (10.9)	102 (8.2)	82 (6.6)	68 (5.5)	58 (4.7)	51 (4.1)
	½" (12.7 mm)	.....	.....	77 (6.2)	61 (4.9)	51 (4.1)	44 (3.5)	38
	5/8" (15.9 mm)	.....	.....	.....	41	39	35	30
	¾" (19 mm)	.....	.....	.....	.....	34	29	25
	7/8" (22.4 mm)	.....	.....	.....	.....	.....	25	22
	1" (25.4 mm)	.....	.....	.....	.....	.....	.....	19

Property	Test Method	Result	Requirement
Viscosity – Brookfield RVF #6 spindle @ 4RPM; Test Condition 75±5°F & 50±10%RH	ASTM D 2393		
Component A (P)		40	≤ 1,500
Component B (P)		30	
Work Life ¹ Viscosity – Brookfield RVF #6 spindle @ 4RPM; Test Condition 3h after mixing @ 75±5°F & 50±10%RH	ASTM D 2393		
Mixed sealant (P)		NA	≤ 2,000
Tack-Free Time [<i>Pass/Fail</i>] 1 specimen; 12h cure @ 75±5°F & 50±10%RH; 30.5±0.5 gram weight	ASTM C 679	Pass	No transfer of the sealant when tested at 12h
Accelerated Aging [<i>Pass/Fail</i>] 1 specimen; sealed containers; Cure specimen 21d±4h @ 120±2°F			
Component A		Pass	No visual or physical change
Component B		Pass	
Primer		Pass	
Self- Leveling [<i>Pass/Fail</i>] 1 specimen per mold type; Test Condition 75±5°F & 50±10%RH			
Mold A – 1/2" x 1" x 12"; level plane; 24h cure		Pass	≤ 1/8 inch variation
Mold B - 1/2" x 1" x 12"; 1.5% slope; 24h cure		Pass	≤ 1/16 inch variation

Change in weight (%) 1 specimen; 3 ounces; Cure 72±24h @ 75±5°F & 50±10%RH; Test exposure immersed in fuel 24h @ 120±2°F Dried for 1h under electric fan		Fed Spec SS-S-200E	1.7	≤ 2
Change in volume (%) 3 specimens; 1.5 ounce ea.; Cure 72±24h @ 75±5°F & 50±10%RH; Condition 1h @ 77±0.5°F; Test exposure 168±2h @ 158±2°F followed by; Cooling 1h @ 75±5°F & 50±10%RH followed by; immersion in water bath @ 75±5°F & 50±10%RH			2.7	≤ 5
Resilience 2 specimens; 6 ounces ea.; 3 readings per specimen Cure 72±24h @ 75±5°F & 50±10%RH; Oven aged – 168h @ 158±2°F Cooling 1h @ 75±5°F & 50±10%RH followed by; immersion in water bath @ 75±5°F & 50±10%RH				
Initial Penetration (cm)	Control		0.07	0.05 to 0.20
	Oven-aged		0.08	0.05 to 0.20
Resilience (%)	Control		99	≥ 75
	Oven-aged		98	≥ 75
Effects of Accelerated Weathering [<i>Pass/Fail</i>] 2 specimens in duplicate described below Cure 72±24h @ 75±5°F & 50±10%RH; Test Cond. 160h ASTM G 155, Cycle 3; 60 min cycle Light exposure only for 51 minutes Light with water spray 9 minutes Applied to concrete panel 4" x 1-1/2" x 1/4"			Pass	Shall exhibit no breakdown of cure or presence of oil like film. No blistering greater than blister size 2 and medium dense class
1.5 ounce containerized specimen (% volume change)			0.4	≤ 5
Bond [<i>Pass/Fail</i>] 3 specimens per condition; 1/2" x 2" x 1"; Primed with DECKTHANE Primer Cure 72±24h @ 75±5°F & 50±10%RH; Test 3 cycles; Rate 1/8 in/h Extension 1/4"				
Non-Immersed Bond [<i>Pass/Fail</i>] Tested 3 cycles @ -20±2°F			Pass	No surface checking, cracking, loss of bond, surface hardening, or loss of rubberlike characteristics.
Fuel Immersed Bond [<i>Pass/Fail</i>] Test Condition 24±1/4h immersed @ 120±2°F; Test Condition 4h immersed @ -20±2°F Tested 5 cycles @ -20±2°F			Pass	

<p>Water Immersed Bond [<i>Pass/Fail</i>] Test Condition 96±1h immersed @ 75±5°F; Test Condition 4h immersed @ -20±2°F; Tested 5 cycles @ -20±2°F</p>		<p>Pass</p>	
<p>Flame Resistance [<i>Pass/Fail</i>] 1 specimen; 1/2" x 2" x 2" Cure 21d at 73.4±3.6°F; 10,000BTU/hr burner Exposure @ 500°±20°F for 120±1 seconds</p> <p>Flow [<i>Pass/Fail</i>] 2 specimens; Cure 72±24h @ 75±5°F & 50±10%RH; <u>Test Exposure 5h @ 200±5°F</u> Note(s): 1 – Work life was not tested as the product is not formulated to have a retarded cure.</p>	<p>Fed Spec SS-S-200E Sec. 4.4.12</p>	<p>Pass</p> <p>Pass</p>	<p>Shall not show any evidence of ignition, support of combustion, hardening or loss of flexibility, flow, or separation.</p> <p>No cracking or dimensional change.</p>