

# USP™ ENERGymastic

## (ACRYLIC FLASHING COMPOUND)

### Product Data Sheet

**PRODUCT INFORMATION:** USP™ ENERGymastic is a 61% solids, single-component, high tensile, acrylic based elastomeric resin mastic with titanium dioxide and special reinforcing materials designed to form seals in stress and expansion/flashing areas. The cured mastic is UV and water resistant with excellent resistance to mildew attack and weathering. USP™ EnergyMastic is used in conjunction with USP™ Energy Coatings.

**RECOMMENDED USES:**

- Sash to masonry.
- Metal roof seams.
- Repairing blisters, cracks and seams in asphaltic roofs.
- Flashing & Detail Flashing.
- Contact U.S. Ply, Inc. for specific uses.



**PRODUCT CHARACTERISTICS:**

**Finish:** Eggshell  
**Color:** White  
**Viscosity:** Trowelable @ 80°F (nominal)  
**Specific Gravity:** 1.26  
**Weight:** 10.5 lbs./gal.  
**VOC:** <50 grams/liter

**Drying Schedule: At 50% RH**

	<u>50°F</u>	<u>70°F</u>	<u>110°F</u>
<b>To Touch</b>	60 min.	45 min.	30 min.
<b>To Recoat</b>	4 hrs.	3 hrs.	2 hrs.
<b>To Cure</b>	7 days	5 days	3 days

**Note:** Drying time is temperature, humidity, and film thickness dependent.

<b>SHIPPING INFORMATION:</b>		
<u>Container Size</u>	<u>Gross Weight</u>	<u>Class</u>
5 Gal.	54 Lbs.	55
<b>D.O.T. Classification:</b> Sealant Caulk, Not Regulated		
<b>HMIS:</b>	Health	1
	Flammability	0
	Reactivity	0
	Protection	X

### PERFORMANCE CHARACTERISTICS

**Physical Properties:**

PHYSICAL PROPERTY	TYPICAL VALUE	TEST METHOD
Solids Content By Weight:	61% ± 2%	Calculated
Solids Content By Volume:	50% ± 2%	Calculated
Tensile Strength:	200 psi ± 25	(ASTM D-2370)
Elongation:	300% ± 25%	(ASTM D-2370)
Weep & Sag:	None	(ASTM C-639)
Peel Adhesion:	10.0 lbs./in.	(ASTM C-794)

PROPERTY	TEST PROCEDURE	RESULT
Accelerated Weathering UV Resistance	ASTM G-53	No degradation after 6,000 hours
Permeability	ASTM E-1653	3.0 perms at 20 mils
Low/High Temperature	ASTM D-822	Films retained their ability to be flexed 180° without cracking at temperatures from -20°F to 180°F with no age hardening or slump

**Shelf Life:** (Unopened) – 12 months from date of shipment  
**Flammability:** Non-Flammable  
**DO NOT FREEZE**

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All values given are approximate and are subject to change without notice. There is no implied or express warranty given through these values or statements, nor are there any assertions that the product purchased has been individually tested to conform to these standards. Testing is performed on a random basis by "in-house" and independent "third party" evaluation for the purpose of classification and or approval. Acceptance, purchase and selection of these products are the sole responsibility of the buyer or buyer's representative. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY U.S. PLY, INC. EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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## APPLICATION PROCEDURES

### USP™ ENERGymastic

#### TEMPERATURE

Air and Surface: 50°F Minimum/140°F Maximum

Material: 50°F Minimum/110°F Maximum

#### RELATIVE HUMIDITY

Can be applied at relative humidity up to 95%

**BRUSH:** No reduction necessary. Use bristle brush. Apply to surface to a 1/8" thickness. Tool immediately to ensure full contact with the interfaces of the joint.

**CAULK:** Fill the joint completely and tool immediately to ensure full contact with the interfaces of the joint.

**METAL ROOFS:** Clean rusted areas of flaking, scaling rust and prime using USP™ EnergyPrime (refer to data sheet). Use three-course repair method by applying USP™ EnergyMastic at the rate of 50 sq. ft. (60 lineal feet/gallon). Embed 6" USP™ PolyForcement fabric (refer to data sheet) into wet mastic, smoothing fabric carefully without stretching. Apply a second coat of USP™ EnergyMastic over the fabric at the same coverage rate extending 1" or 2" wider than the fabric, completely covering the fabric ensuring all edges are firmly embedded.

**NOTE:** Vertical seam (side lap) sealing does not require the use of fabric. Apply USP™ EnergyMastic at 75 lineal feet/gallon approximately 3" wide. Vertical seams on standing seam metal roofs do not require sealing.

**BUR and Modified Bitumen:** Repair blisters, open seams, splits, cracks, and flashings using three course repair method of USP™ EnergyMastic, USP™ PolyForcement, and USP™ EnergyMastic.

**COVERAGE:** Coverage will vary depending on surface and size of area being patched. A thickness of 1/16" is generally sufficient, which represents an application rate of approximately 25 sq. ft./gal. or 30 ln. ft./gal. (at 8" wide).

## SPECIAL CONDITIONS

### Mildew

- Must be removed by power washing and broom scrubbing with a solution of household bleach or liquid detergent and water. Rinse clean and dry.

### Ponding Water:

- U.S. Ply, Inc.'s Warranties do not cover damage due to ponding water.
- These as all coatings should not be applied on roofs collecting ponding water. The National Roofing Contractors Association considers ponding water on any roof unacceptable. (See the NRCA Roofing and Waterproofing Manual).

- Do not use without a vapor barrier in cryogenic tank or cold storage roofing applications.

Please consult U.S. Ply, Inc.'s Technical Department for any specific questions regarding the application of this product.

**Surface Preparation:** All surfaces to be coated must be clean, dry, and paintable. It may be necessary to power wash to enhance adhesion. See application specification for more details. Material is not compatible with grease and/or oil.

**Curing Precautions:** Material should be applied in multiple layers to achieve desired thickness. It is best to let the material cure between coats.

Heavy build-ups in one application will cure very slowly.

Cure rates will vary with temperature and humidity. At 75°F and 50% RH, a surface skin will form within 4 hours with full cure in 5-7 days, depending upon depth. The cure rate is reduced at lower temperatures and less humidity.

**Cleanup Instructions:** Clean up spills and spatters immediately with water.

**SAFETY PRECAUTIONS:** Refer to the MSDS sheet before use. For Chemical emergencies, spills, leaks, exposure, or accidents CALL: CHEMTREC DAY/NIGHT 1-800-424-9300.

**U.S. PLY, INC.**

A DANNY ADAIR COMPANY

Corporate Headquarters

P.O. Box 11740, Fort Worth, Texas 76110

TOLL-FREE: 866-PUSH-PLY (866) 787-4759

Local: (817) 413-0103 • Fax: (817) 413-8221

Website: [www.usply.com](http://www.usply.com) • Email: [sales@usply.com](mailto:sales@usply.com)

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