

# USP® PLY-FLASH (2-part) COMPOUND



## Product Data Sheet

Pioneered with performance in  
mind...Engineered to stand the test of time.

### Product Description

USP® PLY-FLASH is a two-component, cold-applied modified asphalt flashing compound which is enhanced with polyurethane for use as flashing membrane for a variety of roof details on modified bitumen and BUR roofing systems.

### Product Use

USP® PLY-FLASH (2-part) forms a monolithic, self-flashing and self-adhering reinforced flashing membrane for a variety of flashing applications, including wall flashings, penetrations, and repairs. It is designed to be used with USP® PolyForcement Fabric for additional strength for difficult flashing applications. It adheres to modified bitumen, BUR, concrete, Brick/masonry, and metal. a two-component, cold-applied modified asphalt flashing compound which is enhanced with polyurethane for use as flashing membrane for a variety of roof details on modified bitumen and BUR roofing systems.

### Features and Benefits

- Two- part formula is easy to mix
- User friendly open-time and quick cure time
- Excellent adhesion to a variety of substrates
- High solids content and does not shrink
- Low VOC, less than 100 grams/liter
- Low odor
- No Hazmat when shipping
- Can accept roofing granules or coating to match rest of roof
- 2 convenient sizes, 4 gal and 2 gal pails

### Packaging

- Each pail includes:
- Part A – Modified Asphalt Compound
- Part B – Pre-measured Urethane Hardener
- Installation Instructions & SDS

*Note: Tools & PolyForcement Fabric are not Included.*



Fig. 1 Pail Contents with lid off

### USP® Ply-Flash Coverage Rate (approximate)

Approximate coverage is 25 square feet per gallon at 60 mil thickness. Ply-Flash has minimal difference in wet vs dry mill shrinkage due to high solids and fast cure time.

Smooth substrates: 4.0 gal/square  
Fine grained substrates: 5.0 gal/square  
Rough/granule substrates: 6.0 gal/square

See recommendations for specific applications. Yields will vary depending upon system selected and the smoothness and absorbency of substrate.

### Storage

Always store in cool and dry locations. For best results, keep product at 70°F (21°C) or above as cold material can be difficult to mix. Do not store in direct sunlight or in temperatures below 50°F (10°C) or above 90°F (32°C). If stored below recommended temperature, allow material to set at room temperature for 25 hours prior to use.

Approximate shelf life is 24-months from manufacture date when left sealed, inmixed and with proper storage.

### Application Conditions

This product is recommended for use at substrate and ambient temperatures between 60°F (16°C) and 90°F (32°C).

### Mixing

Utilize a heavy duty ½" (12.7mm) drill capable of 450 to 900 rpm. Mixing blade should be 8" (203 mm) diameter mud mixer. **Important: Never mix by hand.** Pre-mix Part A (Modified asphalt compound) for 1 minute, to reduce the viscosity of modified asphalt. With a cortex created, slowly add Part B (Pre-measured hardener) to Part A (modified asphalt compound) and mix thoroughly for 3 minutes. Be sure to move mixer around to fully mix the entire contents. Do not overmix as that will reduce open time. Mix full kits only.



Fig. 2 Pour Part B (hardener) into Part A (modified asphalt) while stirring Part A. Strictly follow mixing times to achieve proper mix.

### USP® Ply-Flash mixed Open Times @ 70°F (21°C)

- Pot Life: 45-minutes ± 15 minutes
- Next Coat: < 5 minutes
- Rainproof: approx. 2-4 hours
- Fully Cured: approx. 24 hours



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The times noted above are approximate, provided as guideline, and may vary. Actual set times and cure should be established in the field based on actual field conditions.

#### Tool Cleaning

When work is interrupted or completed, tools must be thoroughly cleaned with mineral spirits before the resin hardens. For best results, after mixing set mixer in an empty pail and spin mixer at highest setting to separate compound strings, then soak mixing blade in cleaning solution such as mineral spirits.

#### Disposal

Empty Containers or liners may retain some product residue. Empty containers must be disposed of in an approved landfill in accordance with local, state, and federal regulations.

#### Ordering Information

	<b>USP® PlyFlash (2-Part)</b>
#7900026	2-gal USP® Ply-Flash (2-part)
#7900027	2-gal USP® Ply-Flash (2-part)
#7899400	USP® PolyForcement 4"
#7898000	USP® PolyForcement 6"
#7898012	USP® PolyForcement 12"
#7899000	USP® PolyForcement 40"

Physical Properties		
% Solids by Volume	-	Min 90
Weight per Gallon	-	8.5 lbs/gal
Tensile Strength	ASTM D412	200 psi
Elongation	ASTM D412	200%
Hardness Shore @77°F (25°C)	ASTM D2240	60
Permeability to Water Vapor	ASTM E96	0.03 perms

#### Application Guidelines

##### Handling

Keep away from open fire, flame or any ignition source. Vapors may form explosive mixture with air. Avoid skin and eye contact with this material. Avoid breathing fumes. Do not eat, drink, or smoke in area of application. Refer to product Safety Data Sheet (SDS) for additional information pertaining to this product and prior to use or handling.

##### Personal Protection Equipment

Workers should wear appropriate clothing to protect from accidental skin contact. When mixing or applying this product workers must use butyl rubber or nitrile gloves. Safety glasses with side shields are required for eye protection.

Not recommended for use in enclosed spaces, use local exhaust ventilation to maintain worker exposure below TLV. If the airborne concentration poses a health hazard, become irritating or exceeds recommended limits, use a NIOSH approved respirator in accordance with OSHA Respirator Protection requirements under 29 C FR 191.0134. The specific type of respirator will depend on the airborne concentrations. A filtering face piece or dusk mask is not acceptable for use with this product if TLV filtering levels have been exceeded.

##### Surface Preparation

All Substrates must be clean, dry, and free of oil, grease, curing compounds, release agents, laitance, gross irregularities, loose unsound or foreign material such as moss, algae growth, dirt, ice, snow, water, or any other condition that would be detrimental to adhesion of resin to substrate. Mask Perimeter and top edge of the area to be primed and flashed to provide clean lines and prevent over-painting of compounds. Remove and re-apply masking before compound cures and as required between coats. Contact U.S. Ply Technical Department at 817-413-0103 for recommendations regarding specific applications.

##### Application

**Step 1:** Tape off application area and pre-cut USP® PolyForcement to form a reinforcement "L" wrap for curbs and walls; a finger wrap around all penetrations with an additional target piece to place over the base coat of the Ply-Flash Compound.



Fig. 3a



Fig. 3b

Fig. 3a and 3b: Pre-cut finger wrap and targets, and other reinforcement pieces as applicable.

**Step 2:** After mixing Ply-Flash Compound apply a base coat to substrate at a rate of 2.0 to 3.0 gallons per 100 ft<sup>2</sup> using a brush or notched squeegee. The Ply-Flash Compound should be spread evenly onto the surface.



Fig. 4 Spread Ply-Flash Compound with trowel or spatula.

**Step 3:** Install the USP® PolyForcement and embed directly into the Ply-Flash Compound, avoiding any folds and wrinkles. Use a brush or paint spatula to work the Ply-Flash compound into the fabric, saturating from the bottom up, and allow to set for a minute, then apply a second coat of Ply-Flash compound at a rate of 1.5 to 2.0 gallons per 100 ft<sup>2</sup> over the fabric and allow to cure until solid to touch. Where indicated in flashing details install a target piece of fabric embedded in the second coat of compound. Note the fabric should darken in appearance with no white spots showing. White spots are indications of unsaturated fabric or lack of adhesion. It is important to correct these faults before the compound cures.



Fig. 5: Embed reinforcement in Ply-Flash Compound



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**Step 4:** Apply an even coat of Ply-Flash Compound over top of the in-place fabric at a rate of 0.5 – 1.0 gallons per 100 ft<sup>2</sup>. Use caution not to spread compound too thin.

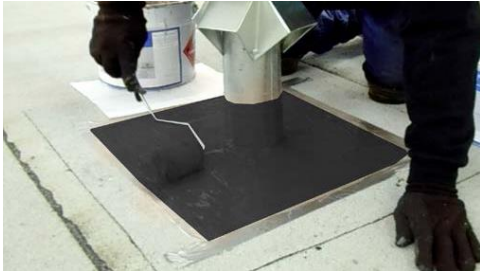


Fig. 6: Cover reinforcement with Ply-Flash Compound

**Step 5: (Surfacing – Choose one method):** (a) Before the compound has cured solid to the touch, embed matching roofing granules to cover compound. (b) Allow compound to cure a minimum of 30 days to receive a separate surface coating application. See individual system specifications for specific guidelines regarding application of topcoats and/or surfacing.



Fig. 7a: Embed matching granules in Ply-Flash Compound



Fig. 7b: Coat over Ply-Flash Compound with compatible coating after allowing compound to cure/weather 30 days.

#### For More Information

For More Information please refer to Ply-Flash Installation specifications and flashing details in the most current U.S. Ply Specification Manual as well as our Ply-Flash Application Field Manual available on our website at [www.usply.com](http://www.usply.com) or your local sales representative.

#### Remarks/Comments

The information provided regarding application of U.S. Ply products is based on extensive development work, as well as many years of experience, and is given to the best of our knowledge. However, due to the diverse conditions encountered in building construction, it is necessary for the contractor to test the product for its suitability in any given case. We reserve the right to make alterations in keeping with technical developments or improvements.

#### DISCLAIMER

*User and certified U.S. Ply contractor/ applicators determine suitability only. See product data sheets, SDS sheets, guide specifications and details for complete information regarding the suitability, application and handling of this product. All values given are approximate and are subject to change without notice.*

*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.*

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