

## OVERVIEW & FEATURES

Tuff-Flash™ Plus LO is a multi-purpose, two-part, asphaltic polyurethane-based, low-odor, liquid flashing membrane designed to create a watertight flashing on tough roofing details that are difficult to seal with a typical modified membrane. Tuff-Flash Plus LO combined with Grip Polyester™ Firm creates a watertight liquid flashing membrane that adheres to smooth or mineral modified membranes as well as a variety of metal surfaces.

**Long-term Protection** – Tuff-Flash Plus LO polyurethane chemistry undergoes a chemical curing reaction that builds strength over time unlike other solvent-based rubberized coatings that simply form films as the solvent flashes off. With this superior chemistry, the material can outperform and outlast similar coatings.

**Low-Odor Application** – Due to its asphaltic polyurethane chemistry, Tuff-Flash Plus LO is a low-odor product, minimizing odor concerns in VOC sensitive areas like hospitals, schools and food production plants.

**Versatile** – Tuff-Flash Plus LO is a versatile liquid flashing mastic that can seal even tough flashing details where a modified membrane or pitch pocket would have trouble sealing. It can be used on SBS, APP, and smooth or mineral surfaced asphalt roofs as well as many types of metal substrates (with proper surface preparation). Tuff-Flash Plus LO can be applied with a brush or trowel, making it easy for in-house maintenance teams to use.

**Environmentally Safe** – Tuff-Flash Plus LO is low VOC and when it cures, it initially looks like hot-applied rubberized asphalt. However, there is no need for a torch or hot kettle.

**Cures Quickly** – A reflective coating can be applied over Tuff-Coat Plus LO within 15-30 days, compared to up to six months with standard emulsions and solvent-based coatings under normal weather conditions (i.e. 77°F (25°C)).

## MIXING

DO NOT THIN. DO NOT HAND MIX. Begin by mixing Part A (2.75 gal.) using a power mixer (e.g. 1/2" drill and an 8" mud mixer). Do not draw air into the mix. While mixing, slowly add one jug of Part B (0.25 gal.) to the pail and mix thoroughly for 3 FULL MINUTES. The proportions are pre-measured, DO NOT ESTIMATE.

## APPLICATION

Ensure that wet conditions do not exist. An infrared scan is highly recommended. Remove all wet insulation, dirt and debris from the existing roof to ensure proper adhesion. Perform an adhesion test on the surface to determine if the surface is an acceptable substrate for the Tuff-Flash Plus LO.

### For Repair Material

Apply Tuff-Flash Plus LO at a rate of approximately 1 gal./7 ft. at 8 in. wide x 1/4 in. over the affected area with GarMesh®. The Tuff-Flash Plus LO must completely cover the GarMesh, not allowing the reinforcement to be exposed. Feather out the perimeter edges of the Tuff-Flash Plus LO, tapering the material outward. This will help alleviate the product from pulling on this membrane and decrease the potential for mineral loss. If granules are to be incorporated, apply them subsequent to the Tuff-Flash Plus LO application. Care shall be exerted not to spread minerals over surfaces prior to product application. If granules are not being used, Tuff-Flash Plus LO must be coated with either an aluminizer or white coating at least 15-30 days after application.

### For Liquid Flashing Detail

Once the desired area is marked off, prime the surface with Garla-Prime™ at 0.5 gal/100 sq. ft. Next, apply Tuff-Flash Plus LO at a rate of approximately 5-6 gal. per 100 sq. ft. (2.0-2.4 l/m<sup>2</sup>) with Grip Polyester Firm embedded within the Tuff-Flash over the entire roof surface. Please refer to the application guide for coverage rates and specific application steps. Feather out the perimeter edges of the Tuff-Flash Plus LO, tapering the material outward. This will help alleviate the product from pulling on this membrane and decrease the potential for mineral loss. If granules are to be incorporated, apply them subsequent to the Tuff-Flash Plus LO application. Care shall be exerted not to spread minerals over surfaces prior to product application. If granules are not being used, Tuff-Flash Plus LO must be coated with either an aluminizer or white coating at 15-30 days after application.

## PRECAUTIONS

- Do not thin
- Do not hand mix
- Do not apply over wet surfaces
- Please read product label and SDS
- Material should be kept indoors while not in use
- Do not keep on the roof overnight
- Do not apply if there is a threat of rain or dew within 24 hours of application

# Tuff-Flash Plus LO

Technical Data	Tuff-Flash Plus LO
<b>Solids by Volume</b>	86%
<b>Density</b>	8.3 lbs./gal.
<b>Elongation @ 77°F (25°C)</b> ASTM D412	325%
<b>Hardness, Shore A</b> ASTM D2240 @ 77°F	55
<b>Tensile Strength</b> ASTM D412	650 psi
<b>Tear Strength</b> ASTM D624 (Die C)	115 lb./in.
<b>Service Temperature</b>	-60°-180°F (-51.1°-82.2°C)
<b>Coverage Rate</b>	
<b>Repair Material</b>	1 gal./7 ln. ft. @ 8" wide x ¼" thick
<b>Liquid Flashing</b>	2 gals./100 sq. ft. w/ reinforcement (base coat) 3-4 gals./100 sq. ft. (top coat)
<b>Packaging</b>	Part A: 3-Gallon pail, 2.75 gallons Part B: 1-Gallon jug, filled 0.25 gallons
<b>Shelf Life</b>	12 months

For specific recommendations and coverage rates, please contact your local Garland Representative or Garland Technical Service Department.

Eco Facts	Tuff-Flash Plus LO
<b>VOC</b>	< 100 g/l

For more information, visit us at: [www.garlandco.com](http://www.garlandco.com)

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Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office for more information.

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