



Unisil Primer

Product Data Sheet



PRODUCT DESCRIPTION

Unisil Primer is a two component, water-based, 1 to 1 ratio primer specifically designed for optimizing the adhesion of Unisil HS Roof Coating over a variety of roofing substrates.

It is also effective at increasing the bond of acrylic, polyurethane, butyl and silicone coats over most new or existing roof, deck and wall substrates, as well as existing coatings. **Unisil Primer** is safe to use, has very little odor and is easy to clean up.

PACKAGING & SHELF LIFE

Part A: 5 gallon (19 liter) pail
Part B: 5 gallon (19 liter) pail

Shelf life 12 months if unopened containers stored between 50°F and 100°F (10°C and 38°C). Do not open containers until ready to use the material.

BASIC USES & ADVANTAGES

Unisil Primer is recommended for use over concrete, metal, wood, most single-ply membranes, and existing coatings. Although it will greatly enhance the adhesion of Unisil HS and various other topcoats over metal surfaces and bonds to all metals, **Unisil Primer** is only recommended for use on non-ferrous metals, galvanized, aluminum, galvalume and coated steel.

Advantages:

- **Adhesion:** **Unisil Primer** has the ability to chemically react with many substrates forming a tenacious bond that will not be affected by water.
- **Unisil Primer's** water-based epoxy tolerates damp & cool conditions, seals surfaces, and stops asphalt bleed-through.
- **Versatile:** a high-build epoxy primer that can fill voids, yet wet into porous surfaces.
- **Chemical Resistance:** **Unisil Primer** achieves a high surface hardness, providing excellent alkali resistance and fair resistance to acids. Two coats will provide excellent resistance to gasoline, oils and solvents.
- **Water-Based:** **Unisil Primer** is non-flammable, non-hazardous and has a "not regulated" D.O.T. shipping classification; it can be cleaned up with soap and water.

PHYSICAL PROPERTIES

UNISIL PRIMER	
Solids by Weight	60% (±2) [ASTM D1644]
Solids by Volume	42% (±2) [ASTM D2697]
Weight per Gallon	11.7 lbs (5.3 kg), as mixed A&B [ASTM D1475]
Flammability	Non-flammable
VOC	<100 g/L, as mixed A&B [EPA Method 24]

Temperature Limit for Normal Service	-40°F to 180°F (-40°C to 82°C)
Dry Time to Touch	1 hour @ 75°F (24°C), 50% RH [ASTM D1640]
Cure Time*	24+ hours @ 75°F (24°C), 50% RH [ASTM D1640] <i>*high humidity and/or low temperature will retard cure and recoat times</i>
Color	Part A is white, Part B is black to dark grey; the combined product is Medium Grey.

APPLICATION INSTRUCTIONS

MIXING: **Unisil Primer** is a two component material available in 5-gallon (19-liter) pails. Mixing ratio is 1:1. Mix each component individually, then combine both components and mix until a uniform consistency is achieved. Once mixed the usable pot life is 2 hours at 75°F (24°C). The pot life can be extended to 3 hours by adding a small amount of water to achieve the original consistency. Do not use any material that has been mixed for more than 4 hours. Avoid over mixing, as product will thicken.

APPLICATION: **Unisil Primer** may be applied by brush, roller or spray. Any airless spray equipment capable of 2,000 psi (13,789 kPa) and 1 gallon per minute (3.8 l/minute) delivery can be used. A reversible, self-cleaning spray tip with an orifice size of .015" to .021" (.4 mm to .5 mm) and minimum 40 degree fan angle is recommended.

Apply in two coats at a minimum total rate of 1-1.5 gallons per 100 ft² (.4-.6 l/m²). See system specifications at GAF.com for more details.

SUBSTRATE	COVERAGE RATE
Smooth Asphalt	100-150 ft ² /gal (2.45-3.68 m ² /L)
Granulated Modified	75-100 ft ² /gal (1.84-2.45 m ² /L)
Concrete	150-200 ft ² /gal (3.68-4.9 m ² /L)
Lightweight Concrete	100-150 ft ² /gal (2.4-3.7 m ² /L)
Wood	300 ft ² /gal (7.3 m ² /L)
Metal	300-400 ft ² /gal (7.3-9.8 m ² /L)
Smooth Single Ply <i>*EPDM, TPO, PVC, Hypalon</i>	300 ft ² /gal (7.36 m ² /L)

*Note: **Unisil Primer** is not designed to form a heavy surface film. Over application will reduce adhesion strength.*

GAF Liquid-Applied

January 2016, supersedes May 2014

For technical, system, and warranty information, visit gaf.com or call 1-800-766-3411.

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LIMITATIONS & PRECAUTIONS

Unisil Primer will freeze and become unusable below 32°F (0°C). Do not ship or store unless protection from freezing is available. Do not apply if conditions will not permit complete cure before rain, dew or freezing temperatures occur. Do not apply in the late afternoon if moisture condensation can appear during the night. Do not apply **Unisil Primer** at temperatures below 50°F (10°C)

or above 130°F (54°C), or when the dew point is less than 5°F (3°C) above the ambient temperature.

Unisil Primer will chalk and yellow upon extended exposure to UV. It is not designed for continuous exterior use without a topcoat.

SAFETY & HANDLING

Unisil Primer may be an irritant to skin. Avoid contact with eyes and skin. Use soap and water to thoroughly clean any skin areas that come in contact with the primer. If irritation persists, undiluted vinegar is effective as a neutralizing agent. If **Unisil Primer** comes in contact with the eyes,

flush with water and call a physician. Avoid breathing of vapor or spray mist. Approved MSHA/NIOSH chemical cartridge respirator must be worn by applicator. For additional information, refer to OSHA guidelines and product Safety Data Sheet (SDS).

CLEAN UP

Use water and UCC or equal to thoroughly flush equipment. Purge the water from the system using solvent. Leave solvent in the lines and equipment until next use.