

# GAF Roofshield® Coating Technical Data Sheet

Updated: 1/18



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North America's Largest Roofing Manufacturer!™*

***[gaf.com](http://gaf.com)***



# Roofshield® Coating

Technical Data Sheet



## PRODUCT DESCRIPTION

United Coatings™ Roofshield® Coating is a water-based acrylic elastomeric coating. Roofshield® Coating's rich consistency uniformly covers the textured profile of various substrates, forming a permanently flexible monolithic membrane that helps provide protection from normal weathering, aging, and ultraviolet exposure. The high reflectivity of Roofshield® Coating helps keep the roof substrate cool, which not only prolongs its longevity but also helps save on energy costs.

## PACKAGING & SHELF LIFE

5-gallon (18.9 liter) pail  
55-gallon (208 liter) drum

Shelf life 18 months from date of manufacture in unopened containers, if stored properly in a clean and well-ventilated area at 50°F – 90°F (10°C – 32°C). Storage outside this temperature range may shorten shelf life. Keep containers covered when not in use. Do not allow coating to freeze.

**GAF**  
1 Campus Drive  
Parsippany, NJ 07054  
1-800-ROOF-411  
gaf.com

*GAF Liquid-Applied*

January 2018, supersedes December 2016

For technical, system, and warranty information, visit [gaf.com](http://gaf.com) or call 1-800-766-3411.

## BASIC USES & ADVANTAGES

United Coatings™ Roofshield® Coating can be used with various primers on existing metal, concrete, TPO, PVC, and most asphaltic membrane roofs. New metal and concrete roofs should be weathered for at least 30 days. New asphaltic, TPO, and PVC roofs should be weathered for at least 90 days.

**Note:** For use on EPDM or smooth APP membranes, see [gaf.com](http://gaf.com) for more details. Do **NOT** use on gravel-surfaced roofs or shingle roofs.

### Advantages:

- **High 84% Initial Reflectivity...** Helps save energy costs by reflecting heat away from the building
- **Water-based and Low VOC...** Approved for use even in states with tough VOC standards
- **UV Protection...** Protects against harmful UV rays

## PHYSICAL PROPERTIES

| ROOFSHIELD® COATING – WHITE |                                |
|-----------------------------|--------------------------------|
| Solids by Weight            | 72% [ASTM D2697]               |
| Solids by Volume            | 58% [ASTM D2369]               |
| Weight per Gallon           | 12.6 lb. (1.2 kg/L) [D1415]    |
| VOC                         | <50 g/L                        |
| Tensile Strength            | 211 psi (1.7 MPa) [ASTM D2370] |
| Elongation                  | 196% [ASTM D2370]              |

|                                   |  |
|-----------------------------------|--|
| Permeance                         | 51 perms [ASTM D1653]  |
| Dry Time to Walk On               | 3 hours at 70°F (21°C), 50% R.H. at 16 wet mils<br><i>*Required time will increase at higher humidity and/or lower temperatures.</i> |
| Application Temperature (Air)     | 50°F (10°C) and rising   |
| Application Temperature (Surface) | 50°F – 110°F (10°C – 43°C)   |
| Thermal Emittance                 | Initial: 0.90<br>3 year: 0.89  |
| Solar Reflectance                 | Initial: 0.84<br>3 year: 0.67  |
| Solar Reflective Index (SRI)      | Initial: 106<br>3 year: 81   |

## APPLICATION INSTRUCTIONS

**Substrate Preparation:** Roof must have positive drainage with no moisture trapped in the roof assemblies. Roof substrate must be clean, completely dry, and free from any foreign matter. Pressure-wash to remove all dust and debris and allow to dry. Examine substrate to receive new roofing and conduct test patches to verify adhesion of coating prior to start of work. Check for any damaged roof membranes including all flashings and penetrations, and repair before coating application commences. Priming of substrate will be required. See [gaf.com](http://gaf.com) for more information.

**Mixing:** United Coatings™ Roofshield® Coating is a ready-to-use material; however, some settling of material may have occurred during shipment and storage. Mix prior to use with a 3/4 horsepower or larger mixer with a blade capable of uniformly mixing the entire container. For 5-gallon (18.9 liter) pails, use 3" (76 mm) minimum diameter mixing blades. For 55-gallon (208 liter) drums, use 6" (152 mm) minimum diameter mixing blades.

**Application:** United Coatings™ Roofshield® Coating may be applied by brush, roller, or airless sprayer. Apply evenly at a rate of 1.0 – 1.5 gallons/100 ft<sup>2</sup>

(4.1 – 6.1 L/10 m<sup>2</sup>) per coat with a minimum of two coats. Do **NOT** apply more than 1.5 gallons (3.1 L) per 100 ft<sup>2</sup> (10 m<sup>2</sup>) in a single coat. Additional coats may be applied as soon as the previous coat is dry enough to walk on and should be applied perpendicular to the previous coat to ensure proper coverage. Total coverage should be between 2.0 – 3.0 gallons/100 ft<sup>2</sup> (8.2 – 12.2 L/10 m<sup>2</sup>) and is dependent on the substrate. Smooth substrates may require less coating, while rough or porous substrates may require more coating. See [gaf.com](http://gaf.com) for more information.

**Spray Application:** Apply product with an airless sprayer, covering the surface at an even rate. Use an airless spray pump with a 1 gallon-per-minute (3.8 L/minute) output and 2,000 psi (13,790 kPa) pressure capability. Use a reversible, self-cleaning tip with orifice size 0.027" – 0.039" (0.69 – 0.99 mm) and a fan angle of 40° to 50°. Filter screens should be 30 mesh or larger. For lengths up to 75 ft. (23 m) from pump, use a 3/8" (9.5 mm) minimum inside diameter, nylon high pressure-type hose. For lengths of 75 ft. – 200 ft. (23 – 61 m) from pump, use 1/2" (12.7 mm) inside diameter hose added

*continued on next page*



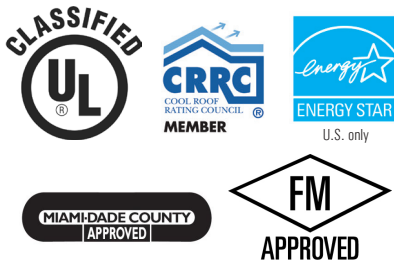
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| APPROVALS                              |  |
|--|--|
| <b>CRRC (Cool Roof Rating Council)</b> | Rated by the CRRC<br>Additional colors rated:<br>Tan   |
| <b>ENERGY STAR®</b>                    | ENERGY STAR® certified<br>(U.S. only)  |
| <b>UL 790 Class A</b>                  | UL Listed to ANSI/UL 790<br>Class A<br><br>Refer to UL Online Certification<br>Directory for actual assemblies.                              |
| <b>Factory Mutual</b>                  | FM Approved<br><br>Refer to FMApprovals.com/<br>RoofNav for actual FM<br>Approved assemblies.  |
| <b>LEED®</b>                           | Can contribute toward<br>satisfying Credits under LEED®<br>v3 and LEED® v4 ; see the GAF<br>LEED® playbook at gaf.com/<br>green for details. |
| <b>Miami-Dade</b>                      | Miami-Dade County Product<br>Control approved  |

Note: LEED® — an acronym for Leadership in Energy and Environmental Design™ — is a registered trademark of the U.S. Green Building Council.



## APPLICATION INSTRUCTIONS, CONT'D

to pump side of existing 3/8" (9.5 mm) hose to maintain pressure and delivery. For lengths over 200 ft. (61 m) from pump, use 5/8" to 3/4" (16 to 19 mm) inside diameter hose added to pump side of existing hose.

**Application Note:** Requires complete evaporation of

water to cure. Cool temperatures and high humidity may slow cure.

**For Application Questions:** Contact GAF Technical Services at 1-800-766-3411 or visit [gaf.com](http://gaf.com).

## LIMITATIONS & PRECAUTIONS

**IMPORTANT:** Repair leaks promptly to avoid adverse effects, including mold growth.

- Do **NOT** apply on wet substrates.
- Do **NOT** heat container.
- Do **NOT** attempt to thin product.

- Do **NOT** apply if rain, dew, fog, heavy moisture condensation, or freezing temperatures are in the 24-hour forecast.

## SAFETY & HANDLING

For specific information regarding safe handling of this material, please refer to OSHA guidelines and product Safety Data Sheet (SDS).

## CLEANUP

Use water and soap to thoroughly flush equipment. If coating has hardened, clean with solvent. Purge the water from the system using solvent.

### GAF

1 Campus Drive  
Parsippany, NJ 07054  
1-800-ROOF-411  
[gaf.com](http://gaf.com)

See applicable warranties and guarantees for complete coverage and restrictions.