

POWERply® Standard FR GT24 HW

A Highly Reflective, Granule Surfaced, Torch Applied, SBS Modified Bitumen Membrane

FEATURES

SBS Polymer Modified Bitumen

Fiberglass Reinforced

Torch Applied

Ultra-White Factory Applied Surfacing

BENEFITS

- Resists thermal shock and accommodates movement

- Dimensionally stable
- Non-rotting fabric

- Economical application method

- Energy Code compliant; Saves jobsite labor

DESCRIPTION

POWERply® Standard FR GT24 HW (Heat Weld) is a fiberglass reinforced, SBS modified bitumen membrane. This membrane is furnished with an ultra-white granule surfacing which is highly reflective, and a burn-off polyethylene sheet on the underside of the membrane. POWERply Standard FR GT24 HW is also asbestos free. POWERply Standard FR GT24 HW exceeds ASTM D 6163, Type I, Grade G.

BASIC USES

POWERply Standard FR GT24 HW is designed for applications in hot air heat welded (torch applied) multi-ply roof and flashing systems where a highly reflective granule surfacing is desired. Refer to UL Roofing Materials and Systems Directory and/or FM Approvals RoofNav for applicable system configurations.

POWERply Standard FR GT24 HW exceeds the minimum requirements for aged solar reflectance per the 2015 International Energy Conservation Code (Chapter 4, Section C402.3.1).

DIMENSIONS

POWERply Standard FR GT24 HW is a 4.2 mm (165 mil) thick membrane. Roll covers 95.8 sq. ft. (8.9m²) when applied, with roll dimensions of 39 3/8" x 32'10" (1m x 10.01m). Approximate roll weight is 105 lbs. (45.8 kg). Available in pallets only.

COLOR

Factory surfaced with an ultra-white granule.

APPLICATION

General Application Data: The following application information is designed to serve as a general guide. Your local Tremco Representative will prepare detailed specifications based upon your roof's conditions.

Drainage: Ponding conditions are unacceptable and will adversely affect performance of any roofing system. If positive drainage does not exist, water removal must be facilitated by lowering drains, and/or installing additional drains, tapered insulation, or a Tremco approved lightweight cellular insulating concrete slope system.

Insulation: Insulation must be dry and kept dry. No more insulation shall be installed than can be covered that day.

Installation Procedures: According to job specifications, prepare the surface to be covered:

- Replace areas of wet insulation, deteriorated deck and wood components.
- Install roof insulation or nailed base sheet and multi-ply base ply system.

Application:

Plan the placement of POWERply Standard FR GT24 HW to ensure that water flows over or along, but not against, the exposed edges. Starting at the low point of the roof, set the roll and unroll the roll up to half of the length where possible to assure proper alignment. Torch apply the flame to the surface of the coiled roll until the surface reaches the proper application temperature (330°F to 350°F [166°C to 176°C]). This fully burns off the polyethylene release backing and causes the bitumen on the back of the roll to flow and provide full coverage and adhesion of the membrane to the substrate.

Slowly unroll the torch heated roll while applying sufficient pressure to the roll to adhere the sheet to the underlying surface. Align the next roll along the factory applied lay line at the inside of the 4" (101 mm) selvage and continue application. A 1/8" to 3/8" (3 mm to 10 mm) bleed out of SBS modified bitumen extending beyond the edge of each lap is required.

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APPLICATION

CONTINUED

Immediately apply matching granules into this bleed out along all side laps and end laps. Roll side laps and end laps with a steel lap roller and check all laps for proper adhesion.

The torch flame must be moved from side to side to heat the back of the sheet enough to develop a glossy sheen. In addition, the selvage and end lap areas of the previously applied sheet must be torch heated to provide proper adhesion. Heavy smoke from the torched surface indicates the surface is being overheated.

Embed the granules on POWERply Standard FR GT24 HW prior to adhering additional sheeting over it at end laps, base flashings, and for patchwork. Heat the granule section and press the granules into the compound using a steel trowel to provide a surface capable of proper adhesion.

Side laps 4" (102 mm) minimum; end laps 6" (152mm) minimum. Offset membrane laps from the ply sheet laps. Stagger end laps at least 36" (914 mm). To assure complete adhesion at lap edges, adhesive should be visible past lap edges. Install flashings as specified.


LIMITATIONS

- Not intended to perform under ponding conditions. Positive drainage required.
- Not to be exposed to solvents, oils, or other contaminants harmful to asphaltic materials.
- Do not use cold process membrane adhesives in contact with the polyethylene backing on the membrane
- Backnail on roofs with slopes 2:12 (2" per foot) (16.6%) or greater.

PHYSICAL PROPERTIES

PROPERTY	TYPICAL VALUE		TEST METHOD
Thickness	0.165 in. (4.2 mm)		ASTM D5147
Tensile strength @ 0°F (-18°C)	120 lbf/in. MD (21kN/m), 100 lbf/in. XMD (17.5kN/m)		ASTM D5147
Elongation at 0°F (-18°C)	2.6% MD, 4% XMD		ASTM D5147
Tensile Strength @ 77°F (25°C)	70 lbf/in MD (12.3kN/m), 50 lbf/in XMD (8.8 kN/m)		ASTM D5147
Elongation at 77°F (25°C)	4% MD, 4% XMD		ASTM D5147
Tear strength at 77°F (25°C)	100 lbf MD (445N), 90 lbf XMD (400N)		ASTM D5147
Low Temp Flex	-10°F (-23°C)		ASTM D5147
Dimensional Stability	pass		ASTM D5147
Compound Stability @ 215°F (102°C)	pass		ASTM D5147
	INITIAL	AGED*	
Solar Reflectance	0.72	0.64	ASTM C1549
Thermal Emittance	0.90	0.90	ASTM C1371
SRI	89	78	ASTM E1980
Aged Solar Reflectance		0.56	2015 IECC
			Chapter 4 C402.3.1

*Aged per ASTM D7987 and CRRC-1

		Initial	Weathered
	Solar Reflectance	0.72	0.64
	Thermal Emittance	0.90	0.90
	Rated Product ID Number	0612-0024	
CRRC Licensee ID Number	0612		
Classification	Production Line		
<p>Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.</p> <p>Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.</p>			

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PRODUCT PRECAUTIONS

Provide written notice to the local fire department in localities where required. Obtain permits for application of roofing by torch where required. A fully charged, 20lb minimum ABC dry chemical fire extinguisher must be available for each man on the project.

Roofing workers should wear proper protective equipment for torch installations, including long sleeved nonsynthetic shirts, long pants with no cuffs, boots, heat resistant gloves, and a face shield.

Roofing workers must be properly trained in safe application techniques for torch applied roofing, such as provided by the CERTA (Certified Roofing Torch Applicator) Program.

Do not torch onto or near combustible materials or surfaces. Do not torch near or into vents, openings, cracks, or penetrations into the building. Shut off power fans in the torch area. Never leave lighted torches unattended.

A fire watch never shorter than 1 hour after the torch application is required for all torch applications. A longer fire watch may be necessary due to the size or configuration of the building. Use an infra-red heat imaging device to detect hot spots or smoldering materials. If a fire is detected, contact the fire department immediately.

Tremco does not supervise contractors or any other person in the application of heat welded torch applied modified bitumen and assumes no responsibility for fire damage or any other damages.

MAINTENANCE

Your local Tremco Roofing Sales Representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventative maintenance are all part of a sound roof program.

GENERAL PRECAUTIONS

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

TECHNICAL SUPPORT

Your local Tremco Roofing Sales Representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications.



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