POWERply® Standard FR GT24 HW A Highly Reflective, Granule Surfaced, Torch Applied, SBS Modified Bitumen Membrane

Composition: 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 Use: 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).

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.

Dimensions: POWERply Standard FR GT24 HW is a 4.2 mm (165 mil) thick membrane. Roll covers 95.8 sq. ft. $(8.9m^2)$ 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.

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.

Color:

Factory surfaced with an ultra-white granule.

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. 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. 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.

The granules on POWERply Standard FR GT24 HW must be fully embedded prior to adhering additional sheeting over it, such as with end laps, base flashings, or 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.

All sections of POWERply Standard FR GT24 HW not protected by granule surfacing must be surfaced with loose granules embedded into the sheet after softening the surface with a torch.

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.

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

Provide written notice to the local fire department in



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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 detection 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.

Availability and Cost: Contact your local Tremco Roofing Representative for pricing and availability. For the name and number of your Representative, call the Roofing Division at 216/292-5000.

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

Guarantee/Warranty: Tremco Incorporated warrants POWERply Standard FR GT24 HW to be free of defects and to meet published physical properties when tested according to ASTM and Tremco standards. Under this warranty, any product that is proved to be defective when applied in accordance to our written instructions, and in applications recommended by Tremco as suitable for this product will be replaced with like product at no charge. THIS IS BUYERS SOLE AND EXCLUSIVE REMEDY. All claims concerning product defects must be made in writing within twelve (12) months of shipment. The absence of such claims in writing during this period will constitute a waiver of all claims with respect to such product. This warranty shall be IN LIEU OF any other warranty, express or implied, including but not limited to, any implied warranty of MER-CHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

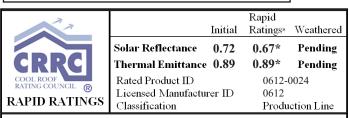
Technical Services: Your local Tremco Representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications. The services of the Tremco Research Center, which has earned a unique reputation in weatherproofing technology, complement and extend the services of the Tremco Technical Service staff.

Statement of Policy and Responsibility: Tremco takes responsibility for furnishing quality materials and for provid-

Physical Performance Characteristics

POWERply® Standard FR GT24 HW

| 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/ | | |
| Elongation at 0°F (-18°C) | 2.6% MD 2.6% XMD 70 lbf/in MD (12.3kN/m) 50 lbf/in XMD (8.8 kN/m) 4% MD 4% XMD 100 lbf MD (445N) 90 lbf XMD (400N) -10°F (-23°C) | | ASTM D5147 |
| Tensile Strength @ 77°F (25°C) | | | |
| Elongation at 77°F (25°C) | | | ASTM D5147 |
| Tear strength at 77°F (25°C) | | | ASTM D5147 |
| Low Temp Flex | | | ASTM D5147 |
| Dimensional Stability | pass | | ASTM D5147 |
| Compound Stability @ 215°F (102°C) | pass | | ASTM D5147 |
| Reflectance (initial) Emissivity SRI (initial) | Initial 72% 0.89 88 | Aged* 67% 0.89 81 | ASTM C1549 ASTM C1371 ASTM E1980 |
| Aged per ASTM D7987 and CRRC-1 | | | |
| Aged Solar Reflectance | 0.562 | | 2015 IECC Chapter 4 C402.3.1 |



*CRRC Rapid Ratings: These are interim laboratory-aged values that simulate weathered values. These values will be replaced by the measured three-year aged values upon completion of the weathering process. 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 effects of solar reflectance and thermal emittance on building performance may vary.

Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.

ing specifications and recommendations for their proper installation. As neither Tremco itself nor its Representatives practice architecture or engineering, Tremco offers no opinion on, and expressly disclaims any responsibility for the soundness of any structure on which its products may be applied. If questions arise as to the soundness of a structure or its ability to support a planned installation properly, the Owner should obtain the opinion of competent structural engineers before proceeding. Tremco accepts no liability for any structural failure or for resultant damages, and no Tremco Representative is authorized to vary this disclaimer.



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