

TITANIUM® FR

Fire Resistant and High Temp Self-Adhered Underlayment

CAUTION

Read and understand all instructions and precautions before applying Titanium® FR underlayment. Check local building codes prior to application of this product. Follow the recommendations of the roof covering manufacturer, Asphalt Roofing Manufacturer's Association (for asphalt shingles), and the Metal Roofing Alliance (for metal roof panels).

DECK PREPARATION

The deck must be clean, smooth, and dry before applying Titanium® FR underlayment. Remove all old roofing down to the deck or, in new construction, apply over the new deck. Sweep the deck surface to remove dirt and debris. Replace any damaged or rotted deck boards.

ALLOWABLE SUBSTRATES

Titanium® FR underlayment can be installed over Plywood, OSB, FRT Plywood, polyisocyanurate foam insulation board, metal (non-corrugated galvalume steel), #30 felt, TITANIUM® FR (as a two-ply system), pre-wrapped sheathing, DensDeck® and USG Securock®. Primer is not required on clean, dry deck surfaces, except for gypsum boards (DensDeck® and USG Securock® roof boards) for which appropriate primer or adhesive is recommended at temperatures ≤ 40F.

DECK EDGE PREPARATION

Along eaves, install metal drip edge under the Titanium® FR underlayment unless otherwise directed by local building codes. Along rakes, apply Titanium® FR underlayment first and install drip edge on top.

FOR CLASS A ROOF ASSEMBLIES

Titanium® FR Underlayment helps to provide Class A Fire Resistance as one component of a roof assembly as shown in the table below:

Roof Covering	Sheathing Thickness	Number of Titanium® FR Plies	ASTM E108 Fire Resistance Classification
0.032" Aluminum Panels	Min. 15/32"	2 Plies	Class A
26 Ga. Steel Panels	Min. 15/32"	1 Ply	Class A
Asphalt Shingles	Min. 15/32"	1 Ply	Class A
Concrete or Clay Tile	Min. 15/32"	1 Ply	Class A

TILE ROOF INSTALLATION

The use of loading battens prior to tile loading is required for Titanium® FR. Please see the table for tile loading limitations. Loading of tile outside the parameters of this table requires installation of loading battens prior to tile loading.

Tile in Stack	Stacking Pattern	Tile Type	Maximum Roof Pitch
10	10 Linear	Flat	6:12
10	10 Linear	Profiled	6:12

METAL ROOF INSTALLATION

For slopes 2:12 and greater, follow standard installation instructions below. Slopes ½:12 - less than 2:12

For standing seam metal roof panels, follow standard installation instructions below with the following modifications: All end laps must be minimum 6 inches wide. Apply min. 6-inch-wide bed of ASTM D4586 compliant roof cement at end of underlying piece and set overlying piece into roof cement, applying firm pressure on entire end lap.

STANDARD INSTALLATION

1. Ensure that decking substrate is acceptable to roof covering manufacturer.
2. Unroll Titanium® FR underlayment and cut into manageable lengths of no more than 15 - 20 feet.
3. Allow it to relax for 3-5 minutes before installing.
4. Reroll each section.
5. Starting at the eaves, lay the Titanium® FR parallel to the eaves edge, with the lower edge of the Titanium® FR flush with the outside of the primed drip edge. The lower edge of the underlayment is the edge that does not have a selvage edge. Remove release liner on back side of sheet and press firmly into place with hand or foot pressure.

6. After installation of each piece, remove the release lining from the selvage and, if necessary, secure with minimum 12 gage roofing nails installed in the selvage and spaced 6 inches on center. This fastening is required when Titanium® FR is installed on slopes of 3:12 or greater.
7. The entire roof surface should be rolled after installation of the Titanium® FR using a minimum 40 lb. roller. Hand rolling over the selvage and directly above the selvage using a minimum 4 inches wide, minimum 10 lb. roller is recommended. If the roof pitch is greater than 4:12, use of a broom with heavy hand pressure is acceptable to ensure product adhesion.
8. Overlap at least 6 inches where the ends of two rolls meet. Apply heavy hand pressure or use a roller along the seam overlapping the next roll.
9. End laps should be offset a minimum of 6 feet on adjacent courses.
10. Along a valley, Titanium® FR underlayment can be cut lengthwise for easier handling. Center the roll in the valley and extend 18 inches on either side of the valley. Remove the release backer and press Titanium® FR underlayment into place, working from the center of the valley or ridge outward in each direction. Always apply valleys starting at the low point and work upward. If an overlap is needed, be sure to overlap the previous piece by minimum 4 inches. Titanium® FR underlayment should be applied in valleys before installing eave applications with membranes.

For further detail on various installation methods, please call 1-800-ROOFING (1-800-766-3464).

PRECAUTIONS

1. Cover Titanium® FR underlayment with finish roof covering. Do not allow Titanium® FR underlayment to remain uncovered. Exposure to sun and weather for more than 180 days may adversely affect this product's performance.
2. Titanium® FR underlayment should be installed by a professional roofing contractor.
3. Titanium® FR Underlayment is a moisture and vapor barrier. The spaces under the covered deck area and the attic space must be ventilated using a minimum ventilation ratio of 1 square foot of net free vent area per 150 square feet of roof/attic area. Balanced ventilation (max. 40-50% exhaust, min. 50-60% intake) is recommended.
4. Titanium® FR underlayment is intended for exterior roof application only and is not intended for use on vertical surfaces.
5. Titanium® FR underlayment should not be installed vertically ("strapping") on any roof surface.
6. Apply Titanium® FR underlayment directly to the roof deck. Allowable roof deck materials are shown under 'Allowable Substrates' in these instructions. Do not apply Titanium® FR over another layer of underlayment unless required by local codes and approved by Owens Corning.
7. Roof coverings should not be installed over wrinkled or buckled Titanium® FR underlayment.
8. Use extreme caution when installing Titanium® FR underlayment. The Titanium® FR underlayment surface may be slippery even when dry. Use of fall protection is highly recommended. Consult OSHA for guidelines on fall protection (29 CFR 1926.500).
9. For best results, apply Titanium® FR underlayment when the air temperature is over 40°F (5°C) and rising, but below 100°F (38°C). When temperatures are under 40°F (5°C), Titanium® FR underlayment will not fully adhere. Store at room temperature prior to installing product in cold weather. If applied in temperatures above 100°F (38°C), or exposed to direct sunlight, the release backing may become difficult to remove. If this situation should occur, move the product into a shaded area until the Titanium® FR underlayment is cool. Once cooled, the release backing can be easily removed.
10. Store Titanium® FR underlayment in a dry, well-ventilated area. Stand Titanium® FR underlayment upright. Do not store at 90°F (32°C) or warmer for extended periods of time. Do not store in direct sunlight.
11. When applying Titanium® FR underlayment, always follow local building codes and the roof covering manufacturer's instructions for installation of this product.
12. When working on the roof, use all necessary safety precautions and guidelines in accordance with proper roofing trade practices.