

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated **February 16, 2022** as noted below. Acknowledge receipt of this addendum in the space provided on the Official Bid Form. Failure to do so may subject the Bidder to disqualification.

#### **QUESTIONS AND CLARIFICATIONS**

- **QUESTION:** Can you please tell me if the 1/4" slopes on the plans are built in Structurally? The plans say "surfaces on the low slopes shall have 1/4"/12" slope to drains. If the deck is sloped 1/4" then the crickets sloping to drains need to be 1/2" per foot. But we need to know if the 1/4" is structural in the decks or will these roofs need tapered?
- **ANSWER:** Assume that all low slope roof zones, except for "B", have sloped structure. See the attached roof zone legend, indicating the location of Zone B. This assumption is based on the previous study, where no insulation was encountered above the structural wood deck. As part of the roofing renewals program, rigid polyisocyanurate insulation is to be installed over the structural deck, and is to include 1/2:12 crickets, as outlined on the Certa roof plan.
- **QUESTION:** So on the roof abatement plan where it say "Abatement Contractor" That is by others?
- **ANSWER:** Correct abatement by others is not in your scope of work.
- **QUESTION:** If we go with 2 layers of 2" poly Iso insulation, it will be 90 days plus before we would see the insulation. Is there a problem with going with 2 layers of 2.6" insulation providing it won't interfere with the curb heights?
- ANSWER: The "savings" involved with mechanically-attaching in lieu of fully-adhering the insulation is a nuanced conversation. For some roofers, it is a wash or even cheaper to fully-adhere, as they have the necessary equipment on-hand (dollies, etc.) to administer the foam quickly and efficiently. The reason why Certa did not design this roof to be mechanically-attached (or any of our low-slope assemblies) is because the fasteners are a significant thermal bridge through the insulation. If the owner is to even consider changing to an attached system vs. adhered, the cost savings need to be clearly provided, so that an informed decision can be made. The initial cost savings will be a moot point for a long-term building holder such as a school.



- **QUESTION:** The specs says "The first layer of insulation may be set into adhesive" can we just mechanically fasten all of it? It will save some money to the district.
- ANSWER: Increasing the curb heights to accommodate the thickness of the insulation shall be provided as part of the base bid. This is clearly outlined in the project documents (SBS Roofing Specification). See the relevant article below. If a change is to be considered to a different type of rigid insulation (XPS or EPS) that information should be shared at this time.

Dayton High School Reroof Dayton School District Dayton, Oregon February 8, 2022

#### SECTION 07 5216 - SBS MODIFIED-BITUMEN MEMBRANE ROOFING

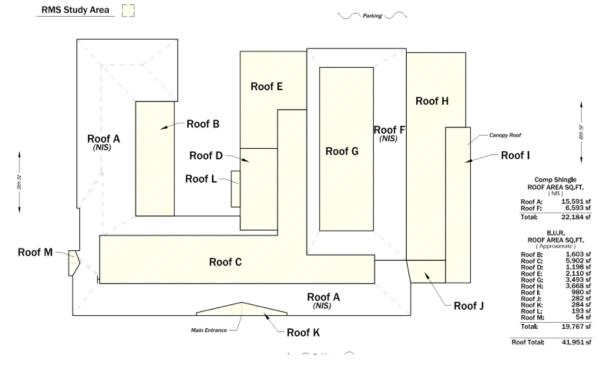
#### PART 1 - GENERAL

- 1.1 SUMMARY
  - A. Remove and dispose of the existing built-up roofing system at the locations depicted on the drawings. Removal includes aggregate surfacing, membrane, and insulation to completely expose the existing wood deck and sheathing at the interior plane of the parapets and curbs.
    - 1. Remove and dispose of existing sheet metal copings.
    - 2. Remove and dispose of existing skylights.
    - Salvage for reinstallation existing HVAC shrouds, photovoltaic panels, and electrical service conduits.
    - 4. Replace existing wood sheathing found to be damaged in like-kind per consultant on Allowance.
  - B. Furnish and install a conventionally-insulated, roofing system at the locations depicted on the drawings. Assembly consists of a two-ply, SBS modified-bitumen membrane over coverboard, insulation, and self-adhered air/vapor barrier membrane. Membrane shall slope a minimum of 1/4:12 to drain. Membrane shall be fully-adhered. Coverboard and insulation shall be mechanically-fastened.
- C. Work shall include new framing members as shown on the details to elevate the height of curbs, supports, and perimeter parapets and edge conditions to compensate for the height of the new insulation above the structural roof deck.





- **QUESTION:** Are we to assume that the decks are flat and all roofs need tapered insulation? Or is the slopes in the structural deck. I know this is late in the game but the plans are sorta saying both, and the roof plan A2.0/detail1 shows no taper?
- **ANSWER:** Roof Zone B is the only one that is assumed to have insulation above the deck. We assume that the structural deck is sloped, and that the only tapered insulation is the cricketing shown on the Certa roof plan to divert water to the through-parapet scuppers.



All the other low slope roof zones are assumed to be installed directly to the structural wood deck. We of course are adding insulation, and the curb heights should be padded up as well per the project documents.



# ROOF CONSTRUCTION DATA

### Roof -- B:

ROOF TYPE:
SURFACE: MEMBRANE- BUR:
BITUMEN TYPE -BUR:
INSULATION:

VAPOR RETARDER: DECK:
AGE REPORTED: INTERIOR LEAKAGE: VISUAL APPEARANCE:
OPTIONS:

BUR Mineral Grain 4-ply /Hot – (Mg-cap + 3-ply assembly) Asphalt ½" Fiberboard 1½" Polyisocyanurate board 2½" Polyisocyanurate board 2½" Polyisocyanurate board None reported Wood Unknown -- estimated at 20+ yrs None currently reported Fair to Good - (Roof system) - Short-term: Maintenance – minor – regular inspections - Long-term: Major - Salvage & Recover

### Roof -- C, D, E, G, H, I, J, K, L & M:

ROOF TYPE:           SURFACE:           MEMBRANE- BUR:           BITUMEN TYPE -BUR:           INSULATION:           VAPOR RETARDER:           DECK:           AGE REPORTED:	BUR Mineral Grain 4-ply /Hot – (Mg-cap + 3-ply assembly) Asphalt None above structural deck None reported Wood Unknown estimated at 20+ yrs
AGE REPORTED:	Unknown estimated at 20+ yrs
INTERIOR LEAKAGE:	None currently reported
VISUAL APPEARANCE:	Fair to Good - (Roof system)
OPTIONS:	- Short-term: Maintenance - minor - regular inspections

- Long-term: Major - Salvage & Recover



### **Substitution requests**

#### APPROVED

1.	Section:	Sheet Materials 2.3
	Product:	Ice and Water Barrier CertainTeed Winter Guard HT
	Paragraph:	Paragraph A Waterproofing Underlayment

### Proposed Substitution

Manufacturer:	Owens Corning / Interwrap
Description:	PSU 30 Ice and Water Barrier High Temp

Section: Asphalt. Shingles 2.2
 Product: Asphalt Shingle's, CertainTeed Landmark
 Paragraph: Paragraph A CertainTeed Landmark

### Proposed Substitution

Manufacturer:	Owens Corning Duration Tru Definition
Description:	Asphalt Shingle

### **END OF ADDENDUM 3**



#### SUBSTITUTION REQUEST: DATE SUBMITTED

3/2/2022

- 1.01 SUBMIT TO: Paul Chamberlin, at paul.chamberlin@hmkco.org
- 1.02 **PROJECT:** 2022 Roofing Project

#### 1.03 SPECIFIED ITEM:

- SECTION NAME AND NUMBER: \_\_\_\_\_ Sheet Materials 2.3 Α.
- PRODUCT TYPE AND NAME AND MODEL: Ice and Water Barrier Certainteed Winter Guard HT Β.
- PARAGRAPH AND PRODUCT DESCRIPTION: \_\_\_Paragraph A Waterproofing Underlayment C.

#### 1.04 **PROPOSED SUBSTITUTION:**

- MANUFACTURER AND MODEL NUMBER(S): \_\_\_\_\_Owens Corning/ Interwrap Α.
- PRODUCT DESCRIPTION: \_\_\_\_\_PSU 30 Ice and Water Barrier High Temp Β.
- C. Attached data includes product description, specifications, drawings, photographs, performance, test data and point by point comparative matrix adequate for evaluation of request including identification of applicable data portions. Attached data also includes description of changes to Contract Documents the proposed substitution requires for proper installation.
- It is the responsibility of the requestee to assemble a comparative matrix outlining key D. elements of proposed substitution.

#### UNDERSIGNED CERTIFIES FOLLOWING ITEMS, UNLESS MODIFIED BY ATTACHMENTS, 1.05 **ARE CORRECT:**

- Α. Proposed substitution does not affect dimensions shown on the drawings.
- Undersigned pays for changes to building design, including engineering design, detailing, Β. and construction costs caused by proposed substitution.
- Proposed substitution has no adverse effect on other trades, construction schedule, or C. specified warranty requirements.
- D. Maintenance and service parts are available locally or readily obtainable for proposed substitution.

#### UNDERSIGNED FURTHER CERTIFIES FUNCTION, APPEARANCE, AND QUALITY OF 1.06 PROPOSED SUBSTITUTION ARE EQUIVALENT OR SUPERIOR TO SPECIFIED ITEM.

- UNDERSIGNED FURTHER CERTIFIES THAT THE MANUFACTURER OF THE PROPOSED 1.07 SUBSTITUTION IS AWARE OF THIS SUBSTITUTION REQUEST AND AGREES TO THE STATEMENTS NOTED ABOVE.
- UNDERSIGNED AGREES THAT THE TERMS AND CONDITIONS FOR SUBSTITUTIONS 1.08 FOUND IN BIDDING DOCUMENTS APPLY TO THIS PROPOSED SUBSTITUTION.



#### 1.09 SUBMITTED BY:

	A.	PRINT NAME: Andrew Bongers			
		SIGNATURE: Andrew Bongers			
	В.	FIRM NAME: Owens Corning, (on behalf of Spearhead Roofing)			
	C.	FULL MAILING ADDRESS: 2720 Montelius St	LL MAILING ADDRESS: 2720 Montelius St		
		City: Klamath Falls State: OR Zig	o: <u>976</u> 01		
	D.	PHONE:541-205-3177E-MAIL:john.spearheadroofing@	)gmail.com		
1.10	FOR U	USE BY ARCHITECT OR ENGINEER			
	A.	APPROVED OR APPROVED AS NOTED BY: NOT APPROVED BY: RECEIVED TOO LATE:			
	В.				
	C.				
	D.	REMARKS:			
	E.	DATE OF RESPONSE:			
END O	F SECT	ION			



### SUBSTITUTION REQUEST: DATE SUBMITTED 3/2/2022

- **1.01 SUBMIT TO:** Paul Chamberlin, at paul.chamberlin@hmkco.org
- **1.02 PROJECT:** 2022 Roofing Project

#### 1.03 SPECIFIED ITEM:

- A. SECTION NAME AND NUMBER: Asphalt Shingles 2.2 A
- B. PRODUCT TYPE AND NAME AND MODEL: Asphalt Shingles, Certainteed Landmark
- C. PARAGRAPH AND PRODUCT DESCRIPTION: \_\_\_\_\_

#### **1.04 PROPOSED SUBSTITUTION:**

- A. MANUFACTURER AND MODEL NUMBER(S): Owens Corning Duration Tru Definition
- B. PRODUCT DESCRIPTION: \_\_\_\_\_ Asphalt Shingle
- C. Attached data includes product description, specifications, drawings, photographs, performance, test data and **point by point comparative matrix** adequate for evaluation of request including identification of applicable data portions. Attached data also includes description of changes to Contract Documents the proposed substitution requires for proper installation.
- D. It is the responsibility of the requestee to assemble a comparative matrix outlining key elements of proposed substitution.

# **1.05** UNDERSIGNED CERTIFIES FOLLOWING ITEMS, UNLESS MODIFIED BY ATTACHMENTS, ARE CORRECT:

- A. Proposed substitution does not affect dimensions shown on the drawings.
- B. Undersigned pays for changes to building design, including engineering design, detailing, and construction costs caused by proposed substitution.
- C. Proposed substitution has no adverse effect on other trades, construction schedule, or specified warranty requirements.
- D. Maintenance and service parts are available locally or readily obtainable for proposed substitution.

# 1.06 UNDERSIGNED FURTHER CERTIFIES FUNCTION, APPEARANCE, AND QUALITY OF PROPOSED SUBSTITUTION ARE EQUIVALENT OR SUPERIOR TO SPECIFIED ITEM.

- 1.07 UNDERSIGNED FURTHER CERTIFIES THAT THE MANUFACTURER OF THE PROPOSED SUBSTITUTION IS AWARE OF THIS SUBSTITUTION REQUEST AND AGREES TO THE STATEMENTS NOTED ABOVE.
- 1.08 UNDERSIGNED AGREES THAT THE TERMS AND CONDITIONS FOR SUBSTITUTIONS FOUND IN BIDDING DOCUMENTS APPLY TO THIS PROPOSED SUBSTITUTION.



#### 1.09 SUBMITTED BY:

	A.	PRINT NAME: Andrew Bongers		
		SIGNATURE: Andrew Bongers		
	В.	FIRM NAME: Owens Corning, (on behalf of Spearhead Roofing)		
	C.	FULL MAILING ADDRESS: 2720 Montelius St		
		City: Klamath Falls State: ORZip:9760	1	
	D.	PHONE: 541-205-3177 E-MAIL: john.spearheadroofing@gmail.com		
1.10	FOR USE BY ARCHITECT OR ENGINEER			
	A.	APPROVED OR APPROVED AS NOTED BY:	_	
	В.	NOT APPROVED BY:		
	C.	RECEIVED TOO LATE:	-	
	D.	REMARKS:		
	E.	DATE OF RESPONSE:		
END O	F SECT	ION		



# **STANDARD PRODUCT^ LIMITED WARRANTY**

# on Owens Corning® Roofing Shingles and Components

THIS WARRANTY INCLUDES LIMITATIONS ON ITS TRANSFERABILITY. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE OR PROVINCE TO PROVINCE.

FOR CANADA ONLY: THE TERMS IN THIS WARRANTY, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT, OR MODIFY BY AND ARE IN ADDITION TO ANY PROVINCIAL LAWS.

#### INTRODUCTION

Thank you for your recent purchase of Owens Corning® Roofing Shingles and Components manufactured by Owens Corning Roofing and Asphalt, LLC ("Owens Corning"). We believe we manufacture the highest quality and most attractive roofing shingles and components available anywhere, and that is why we stand behind them with one of the best warranties in the industry. We have attempted to write this warranty in clear, plain English terms, so you will fully understand the warranty we are making to you. If anything in this warranty is not clear to you, please call us at 1-800-ROOFING or visit our website at www.owenscorning.com/roofing.

#### WHO IS COVERED

To be entitled to the benefits of this Standard Product Limited Warranty: (1) your property must be located in the United States or Canada and (2) you must be the original consumer purchaser (the property Owner, not the installer or contractor) of the roofing shingles and components.

#### WHAT IS COVERED

- Roofing Shingles: We warrant that your Owens Corning<sup>®</sup> Roofing Shingles and Owens Corning<sup>®</sup> Hip & Ridge Shingles are free from any manufacturing defects that (1) materially affect their performance on your roof during the TRU PROtection<sup>®</sup> period or that (2) cause leaks during the balance of the applicable warranty period after the TRU PROtection<sup>®</sup> coverage period has expired. To determine the length of the TRU PROtection<sup>®</sup> coverage period and the balance of the applicable warranty period, please see "How Long Are You Covered" and the "Limited Warranty Information Table" at the end of this warranty.
- Roofing Components: Warranty coverage for Owens Corning® Hip & Ridge Shingles, including Berkshire®, DecoRidge®, DuraRidge®, ImpactRidge™, ProEdge®, RIZERidge®, and WeatherGuard® HP matches the corresponding roofing shingle. For all other Owens Corning roofing components, when you install three (3) or more of the five (5) Owens Corning roofing components listed below (one product from each category where applicable) with any Owens Corning shingle, the warranty coverage for manufacturing defects and the coverage period will match the warranty of your shingles. Please see "How Long Are You Covered" and the "Limited Warranty Information Table" at the end of this warranty for warranty periods. If less than three (3) Owens Corning® components are used, these products will be warranties. See individual component warranties for more detail. Owens Corning roofing component categories:
  - a. Owens Corning® Hip & Ridge Shingles, including Berkshire®, DecoRidge®, DuraRidge®, ImpactRidge™, ProEdge®, RIZERidge®, and WeatherGuard® HP.
  - b. Owens Corning<sup>®</sup> VentSure<sup>®</sup> products (intake vent or exhaust vent). If a VentSure<sup>®</sup> intake vent AND VentSure<sup>®</sup> exhaust vent are both used, this counts as one (1) of the three (3) requirements listed above. VentSure<sup>®</sup> off-ridge exhaust vents are excluded from this warranty.
  - c. Owens Corning<sup>®</sup> brand roof underlayment products, RhinoRoof<sup>®</sup> U20 roof underlayment, Titanium<sup>®</sup> brand synthetic roof underlayment products, or FIBERGLAS<sup>™</sup> Reinforced Felt. Installing a qualifying Owens Corning<sup>®</sup> Self-Adhered Ice & Water Barrier product covering the entire deck also meets this requirement and Section (e) below.
  - d. Owens Corning® Starter Shingle products; and
  - e. Owens Corning<sup>®</sup> WeatherLock<sup>®</sup>, Titanium<sup>®</sup>, or RhinoRoof<sup>®</sup> Self- Adhered Ice & Water Barrier products.

This warranty does not cover non-Owens Corning® roofing components, such as flashing, fasteners, pipe boots, and wood decking. This warranty applies only to those shingles purchased after January 1, 2022, and before the date a later warranty applicable to the shingles comes into effect.

#### HOW LONG ARE YOU COVERED

ALL IMPLIED WARRANTIES APPLICABLE TO YOUR ROOFING SHINGLES AND COMPONENTS ARE LIMITED IN DURATION TO THE TRU PROTECTION® COVERAGE PERIOD APPLICABLE TO SUCH PRODUCTS, AS PROVIDED BY THIS WARRANTY, UNLESS A SHORTER PERIOD IS PERMITTED BY APPLICABLE LAW. SOME STATES OR PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

I. TRU PROTECTION® PERIOD: From the installation of the shingles through the TRU PROtection® coverage period of this warranty, Owens Corning will compensate you to either repair, replace, or recover defective Owens Corning® Roofing Shingles and Components. The compensation provided by Owens Corning is limited to the cost of replacing Owens Corning® Roofing Shingles and Components and the labor directly required to repair, replace, or recover such defective Owens Corning® roofing products as reasonably determined by Owens Corning. Our compensation will not cover any non-Owens Corning® underlayment, metalwork, flashings, or other related work, and we will not cover the cost to remove or dispose of your roofing materials. The TRU PROtection® coverage period does not apply to Wind and Algae coverage. Please see the "What About Wind Resistance" and "What About Algae Resistance" portions of this warranty for applicable coverage.

coverage. Owens Corning reserves the right to arrange directly for the repair or replacement of your products instead of compensating you directly. This compensation is limited as follows:

- A. If Owens Corning decides to replace the shingles or components, Owens Corning will compensate you only for the cost of replacement Owens Corning<sup>®</sup> Shingles or Components and the labor directly required to replace the defective shingles, both as reasonably determined by Owens Corning.
- B. If Owens Corning decides to repair or recover the shingles, Owens Corning will compensate you only for the cost of the labor directly required to repair or recover the defective shingles as reasonably determined by Owens Corning.
- C. The TRU PROtection® coverage period does not apply to wind and algae coverage. Please see **"What About Wind Resistance"** and **"What About Algae Resistance"** for applicable coverage.
- PRORATED PERIOD: Once the TRU PROtection® coverage period for the 2. Owens Corning® roofing products purchased has expired, the prorated period will begin. During this prorated period, we will provide prorated compensation of the cost of the defective Owens Corning® products, but no labor or other costs will be covered during the prorated period, and we will take into account the number of full years of use that you have enjoyed from the original installation date through the date of your claim, and reduce the amount of our compensation to you accordingly. We will prorate the amount of our compensation to you to adjust the number of years you have enjoyed from the original installation through the date of your claim. For example: If you purchased a shingle with a Lifetime warranty and three (3) or more Owens Corning components and you make your claim in the 15th year of the warranty, we will not cover labor but our compensation to you will be 72% of the Owens Corning® Roofing Shingles and Components cost at the time of purchase. Further detail can be found on the "Limited Lifetime<sup>A</sup> Roofing Shingles and Components Proration<sup>§</sup> Table."
- 3. OTHER TYPES OF STRUCTURES: The coverage for the Owens Corning® roofing products offered by this warranty depends on the structure of which the shingles are installed and the owner of the structure. Lifetime coverage for all Owens Corning® Shingles applies only to single-family detached homes where the owner of the roof is the resident occupying the home.

In the instance of roofing products purchased or installed upon property owned by others, for example, corporations, governmental agencies, partnerships, trusts, religious organizations, schools, condominiums, homeowners' associations, or cooperative housing arrangements, or installed on any other structures (for example, on apartment buildings or any other type of building or premises not used by individual homeowners as their residence), the warranty period will be 40 years from the original installation date of the roofing shingles and components, and the TRU PROtection® coverage period will be five years. Further detail can be found on the **"Limited Lifetime^ Roofing Shingles and Components Proration§ Table."** Owens Corning

reserves the right to arrange directly for the repair or replacement of your products instead of compensating you directly.

#### Limited Lifetime<sup>(2)</sup> Shingle Proration<sup>§</sup> Table

STRUCTURE/ OWNER	TRU PROTECTION® PERIOD YEARS 1-10	PRORATED PERIOD YEARS 11-40	PRORATED PERIOD YEARS 41 AND BEYOND
Single-family detached home owned by individuals	100%++	80% reduced by 2% every year thereafter until year 40	20%
STRUCTURE/ OWNER	YEARS 1-5	YEARS 6-40	YEARS 41 AND BEYOND
Other types of structures	100%++	87.5% <sup>§</sup> reduced by 2.5% every year thereafter until year 40	No coverage

 $^{\scriptscriptstyle \bigtriangleup}$   $\,$  For as long as Owner owns home.

§ Proration is calculated annually, based on the original installation date. There are no partial

year prorations. ++ Of costs covered under this warranty.

#### 4. **EXCEPTIONS**

All of the Owens Corning Obligation of Compensation under this warranty (whether for repair, replacement, recovery, or refunding a prorated portion of the cost of the defective roofing products) are subject to the limitations provided by this warranty. Any replacement Owens Corning® Products will be warranted only for the remainder of the original warranty period. Owens Corning will not provide compensation for any underlayment, metalwork, flashings, or other related work. We will not compensate for the removal and replacement of solar panels or other rooftop equipment, and we will not compensate for the cost to remove or dispose of your roofing shingles and components.

#### 5. WHAT ABOUT WIND RESISTANCE

Your shingles and Hip & Ridge (the Shingle Products) contain asphalt sealant that requires direct warm sunlight for several days (Thermal Sealing) in order to seal properly. If your Shingle Products are installed during a period of cool weather, they may not adequately seal until the season changes or the weather warms, and if your Shingle Products never receive direct sunlight or are not exposed to adequate surface temperatures, they may never achieve Thermal Sealing. Prior to your shingles achieving Thermal Sealing, your Shingle Products are more vulnerable to blow-offs and wind damage. This is the fundamental nature of Shingle Products and not a manufacturing defect, and we are not responsible for any blow-offs or wind damage that might occur prior to Thermal Sealing having occurred. After your Shingle Products have achieved Thermal Sealing, however, they will be covered under this warranty if they experience blow-offs or wind damage in winds (including gusts) up to the levels and for the period from the original installation date ("Wind Warranty Period") listed in the "Limited Warranty Information Table" listed in the chart at the end of this warranty.

HOWEVER, THE COVERAGE AGAINST SHINGLE PRODUCT BLOW-OFFS OR WIND DAMAGE IS IN EFFECT FOR A PERIOD OF 15 YEARS FROM THE ORIGINAL DATE OF INSTALLATION. Owens Corning will be liable only for the reasonable cost of replacing blown-off Shingle Products (to include material and labor during the applicable TRU PROtection® warranty period) and the reasonable cost of manually sealing the unsealed Shingle Products remaining on the roof.

#### 6. WHAT ABOUT ALGAE RESISTANCE

If the Shingle Products that you purchased were not specifically labeled as **"Algae Resistant"** (AR), then any discoloration caused by algae is not covered by this warranty as explained in the section **"What Is Not Covered."** However, if you did purchase AR Shingle Products, they are covered for the period described in the **"Limited Warranty Information Table"** at the end of this warranty following the date of installation (**"AR Warranty Period"**) against brown-black staining caused by growth of cyanobacteria Gloeocapsa magma algae. We do not cover the effects of other growth, such as mold, lichen, and green algae. If brown-black staining occurs during the AR Warranty Period, you will be entitled to the following remedy:

- a. Remedy for Algae Growth If your AR Shingle Products are discolored due to cyanobacteria algae growth during the first year of the AR Warranty Period, we will compensate you for the cost, including labor (such cost not to exceed the cost of the AR Shingle Products plus the cost of installation), as reasonably determined by Owens Corning, to repair, replace, or recover the affected AR Shingle Products. For purposes of this AR Shingle Products warranty, the term "repair" as used above refers to cleaning or otherwise removing any algae growth from affected AR Shingle Products. Decisions regarding whether your AR Shingle Products should be repaired, replaced, or recovered will be made solely by Owens Corning.
- b. Proration If your AR Shingle Products have been installed longer than 1 year, labor will not be covered, and compensation will be limited to a prorated amount of the cost of the affected AR shingles. We will prorate your compensation to take into account the number of full years of use that you have enjoyed from the original installation date through the date of your claim. For example: If you make your claim anytime in the 4th year of the AR Warranty and the AR Warranty Period is 10 years, our compensation to you will be the amount of the cost of the affected Owens Corning® AR Shingle Products reduced by 3/10ths of the cost of the affected AR Shingle Products.

NOTE: In some coastal areas and/or areas with limited rainfall, copper released by algae-resistant shingles can cause excessive corrosion to aluminum gutters. In these regions, Owens Corning recommends using vinyl gutters and will not be liable for any damage that may result from using aluminum gutters with algae-resistant shingles.

# TRANSFERABILITY OF THIS WARRANTY (BASED ON ORIGINAL INSTALLATION DATE)

This warranty is not transferable except as follows: You may only transfer this warranty one time, anytime during the life of the warranty, to the purchasers of the structure on which the shingles are installed. For this warranty to transfer and the second Owner to obtain the benefits of this warranty, the second Owner must, within 60 days after the date of the real estate transfer, contact 1-800-ROOFING and submit together (1) proof of purchase of the Owens Corning® Roofing Shingles and Components and (2) the installation date and ownership history.

- If the transfer takes place within the TRU PROtection® Nonprorated period (see "Limited Warranty Information Table"), the second Owner is entitled to the same coverage as the original Owner.
- 2. If the transfer occurs after the TRU PROtection® Nonprorated period (see "Limited Warranty Information Table"), the balance of this warranty shall be reduced to a 2-year period after the date of ownership change. If there is a manufacturing defect that causes leaks during this 2-year period, our compensation to the second Owner will be based only on the reasonable cost of replacement of the Owens Corning® Roofing Shingles and Components reduced by the amount of use the second Owner and the original Owner have enjoyed from the original installation date through the date of your claim.
- 3. The AR Warranty Period and Wind Warranty Period are fully transferable. The second Owner will receive the balance of the coverage outlined in the **"Limited Warranty Information Table"** based upon the original installation date.

#### WHAT IS NOT COVERED

Our warranty does not cover damage to the Owens Corning® Roofing Shingles and Components products due to any cause not expressly covered in this warranty. After our roofing products leave our manufacturing facilities, they are subject to conditions and handling beyond our control that could affect their performance. This warranty does not cover any problems with non-defective roofing products caused by conditions or handling beyond our control. Some examples of conditions not covered by this warranty include:

- Acts of God, such as hail, strong storms or winds (including gusts) over the maximum wind speed listed in the "Limited Warranty Information Table" at the end of this warranty, ice damming above the area covered by leak barriers or flashings, or snow or water infiltration through exhaust vents.
- Roof damage or leaks caused by pre-existing conditions, underlying roofing materials, underlying structural failures, settlement, or any defective areas on or near the roof that are not part of the Roofing System. Examples include but are not limited to chimneys with loose or cracked mortar, damaged siding, faulty counterflashing, or improperly designed or installed gutter or downspout systems.
- 3. Foot traffic on your roof or damage caused by objects (e.g., tree branches) falling on your roof.
- 4. Improper or faulty installation of your roofing products installation must be in accordance with our written installation instructions and comply with local building codes.
- Shading, or variations in the color of your Owens Corning<sup>®</sup> Shingle Products or discoloration caused by algae, fungi, lichen, or cyanobacteria (unless covered under the section "What About Algae Resistance").
- 6. Damage caused by improper or inadequate roof ventilation or roof drainage, unvented attics, or enclosed roof rafter assemblies.
- 7. Damage caused by, or the cost to repair or replace, any non-Owens Corning® Products, including but not limited to metal work, counterflashing, failed and/or corroded roof nails, or pipe boots that allow water to enter the structure or Roofing System.
- 8. Damage to the shingles caused by alterations made after completion of application, including structural changes, equipment or solar panel installation, power washing, painting, or the application of cleaning solutions, coatings, or other modifications.
- 9. Any damage due to debris, resins, or drippings from foliage.
- 10. Improper storage, handling, or other conditions beyond our control.
- 11. Any costs that you incur that are not authorized in advance by Owens Corning.

#### **REPLACEMENT SHINGLE VARIATION**

As a result of our ongoing efforts to improve and enhance our roofing products, we must reserve the right to discontinue or modify our shingles and component products, including their colors. We are not liable to you if you make a warranty claim in the future and any replacement roofing products you receive vary in color either because of normal weathering or changes in our product line. You should understand that, if we replace any of your shingles or component products under this warranty, we reserve the right to provide you with substitute shingles or component products that are comparable only in quality and price to your original shingle or component products.

#### COMPENSATION

Under the terms of this warranty, the manner of compensation is at the sole discretion of Owens Corning and may be arranged directly by Owens Corning or issued in the form of cash settlement and/or material credit for Owens Corning<sup>®</sup> Products to an existing supplier of Owens Corning<sup>®</sup> Roofing materials. All costs must be pre-approved by Owens Corning.

#### **CLAIMS PROCESS & RIGHT OF INSPECTION**

To make a claim under this warranty, you must do so within 30 days after you discover the problem. To fully evaluate your claim, we may ask you to provide, at your expense, pictures of your shingles or shingle samples for us to test. You must do so in order to be eligible to make a claim under this warranty. To make a claim or if you have any questions, do not hesitate to call 1-800-ROOFING or visit us at www.owenscorning.com/roofing. If you repair or replace your Owens Corning<sup>®</sup> Products before Owens Corning has made a determination on your claim, your claim may be denied. Owens Corning shall have a reasonable time after notification of a claim to inspect the roof. If requested by Owens Corning, the owner shall provide Owens Corning with reasonable access to the roof, during normal business hours, for the purpose of conducting an inspection of the roofing products.

#### NO MODIFICATIONS TO THIS WARRANTY

The terms of this warranty may not be waived or modified (whether by a statement, omission, course of dealing, or any act), except in writing signed by an officer of Owens Corning or a licensed attorney in the Owens Corning legal department, Technical Services Director, or by the Owens Corning Field Technical Leader. Other than such an officer or attorney, Technical Services Director, or Field Technical Leader, nobody (regardless of whether an Owens Corning employee, a contractor, an installer, or otherwise) has authority to act on behalf of Owens Corning (for example to waive or modify this warranty, to make representations or warranties, or to undertake any liability). This warranty represents the entire agreement between the parties and replaces all other communications, warranties, representations, and guarantees.

#### MANDATORY ARBITRATION

To the extent permitted by applicable law, Owens Corning and you agree to arbitrate all disputes and claims arising out of or relating to this warranty or Owens Corning® Shingles ("Dispute"). This warranty evidences a transaction in interstate commerce, and the Federal Arbitration Act governs the interpretation and enforcement of this provision. A party who intends to seek arbitration must first send to the other, by certified mail, a written notice of intent to arbitrate ("Notice"). The Notice to Owens Corning should be addressed to: One Owens Corning Parkway, Toledo, OH 43659 ("Arbitration Notice Address"). The Notice must (a) describe the nature and basis of the claim or dispute and (b) set forth the specific relief sought ("Demand"). If the parties do not reach an agreement to resolve the claim within 30 days after Notice is received, you or Owens Corning may commence an arbitration proceeding. All issues are for the arbitrator to decide, including the scope of this arbitration clause, but the arbitrator is bound by the terms of this warranty. The arbitration shall be governed by the Commercial Dispute Resolution Procedures and the Supplementary Procedures for Consumer Related Disputes (collectively, "AAA Rules") of the American Arbitration Association ("AAA"), as modified by this warranty, and shall be administered by the AAA.

# YOU AND OWENS CORNING HEREBY WAIVE THE RIGHT TO A TRIAL BY JURY.

The arbitrator may award injunctive relief only in favor of the individual party seeking relief and only to the extent necessary to provide relief warranted by that party's individual claim.

#### YOU AND OWENS CORNING MAY BRING CLAIMS AGAINST THE OTHER ONLY IN EACH PARTY'S INDIVIDUAL CAPACITY, AND NOT AS A PLAINTIFF OR CLASS MEMBER IN ANY PURPORTED CLASS OR REPRESENTATIVE PROCEEDING.

Further, you agree that the arbitrator may not consolidate proceedings of more than one person's claims and may not otherwise preside over any form of a representative or class proceeding.

#### **GOVERNING LAW AND FORUM**

This warranty and all Disputes are governed by United States Federal laws and laws of Ohio. Subject to the **"Arbitration"** provision in this warranty, if there are any Disputes that cannot be arbitrated, then the parties consent to the exclusive jurisdiction and venue of the state and federal courts in Ohio with respect to such Disputes.

#### SAVINGS AND SEVERABILITY

To the extent that this warranty is inconsistent with applicable law, this warranty is hereby modified to be consistent with such applicable law. If an arbitrator or court determines that any term in this warranty is illegal or unenforceable, the parties intend for the arbitrator or court to interpret or modify this warranty to the effect of the original intent of the parties as closely as possible while rendering the term and this warranty fully legal and enforceable. If a term in this warranty cannot be rendered legal and enforceable accordingly, the parties intend for the arbitrator or court to sever the illegal or unenforceable term from this warranty, leaving the remainder of this warranty enforceable.

#### LIMITATIONS

NO DISPUTE MAY BE BROUGHT LATER THAN 1 YEAR AFTER ANY CAUSE OF ACTION HAS ACCRUED, AFTER WHICH ALL DISPUTES ARE FOREVER BARRED.

THIS WARRANTY IS YOUR EXCLUSIVE WARRANTY FROM OWENS CORNING AND REPRESENTS THE SOLE REMEDY TO ANY OWNER OF OWENS CORNING® ROOFING SHINGLES AND COMPONENTS. OWENS CORNING MAKES NO OTHER REPRESENTATIONS, WARRANTIES, OR GUARANTEES OF ANY KIND OTHER THAN THOSE STATED EXPLICITLY IN THIS WARRANTY.

YOUR REMEDY FOR DEFECTIVE SHINGLES OR OWENS CORNING<sup>®</sup> ROOFING SHINGLES AND COMPONENTS IS FULLY DESCRIBED IN THE SECTION, **"HOW LONG ARE YOU COVERED."** YOU ARE NOT ENTITLED TO ANYTHING MORE THAN WHAT IS DESCRIBED IN THAT SECTION. OWENS CORNING HAS NO REASON TO KNOW ANY PARTICULAR PURPOSE FOR WHICH YOU ARE BUYING ROOFING SHINGLES OR COMPONENTS.

OWENS CORNING IS NOT RESPONSIBLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, PUNITIVE, OR OTHER DAMAGES OF ANY KIND, INCLUDING DAMAGE TO YOUR STRUCTURE OR TO YOUR STRUCTURE'S CONTENTS, WHETHER FOR BREACH OF THIS WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHER CLAIMS DERIVED IN TORT OR FOR ANY OTHER. SOME STATES OR PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

**FOR CANADA ONLY** — The terms in this warranty, except to the extent lawfully permitted, do not exclude, restrict, or modify but are in addition to any provincial laws.

#### LIMITED WARRANTY INFORMATION TABLE

PRODUCT NAME	WARRANTY* LENGTH	TRU PROTECTION® COVERAGE PERIOD	WIND WARRANTY PROTECTION	WIND WARRANTY PERIOD	AR <sup>1</sup> WARRANTY PERIOD
Berkshire®	Lifetime≏	10 Years	130 MPH	15 Years	15 Years
Woodmoor®	Lifetime≏	10 Years	110/ 130 MPH**	15 Years	10 Years
Woodcrest <sup>®</sup>	Lifetime≏	10 Years	110/ 130 MPH**	15 Years	10 Years
WeatherGuard® HP**	Lifetime≏	10 Years	110/ 130 MPH***	15 Years	10 Years
Duration® Series <sup>++</sup>	Lifetime≏	10 Years	130 MPH	15 Years	10 Years
Oakridge <sup>®+++</sup>	Lifetime≏	10 Years	110/ 130 MPH***	15 Years	10 Years
Supreme®	25 Years	5 Years	60 MPH	5 Years	10 Years

For as long as Owner owns home.

- \* Excludes non-Owens Corning roofing products, such as flashing, fasteners, pipe boots, and wood decking.
- AR is available regionally. Visit www.owenscorning.com/roofing for availability in your zip code.
   Applies to Owens Corning® Shingles and Owens Corning Hip & Ridge Shingles. Three (3) qualifying components must be installed in addition to the shingles in order for all other Owens
- qualitying components those be installed in addition to the sningles in order for all other owens Corning components to qualify for this warranty.
  th Includes Trubefinition® Duration MAX®, Trubefinition® Duration® COOL Plus, Trubefinition®
- Duration® COOL, TruDefinition® Duration® Designer, TruDefinition® Duration FLEX<sup>e</sup>t, TruDefinition® Duration STORM<sup>®</sup>t, Duration® Premium, and TruDefinition® Duration® Shingles. ++++ Includes TruDefinition® Oakridge® Shingles.
- \*\* WeatherGuard<sup>®</sup> HP Shingles require WeatherGuard<sup>®</sup> HP Hip & Ridge Shingles. TruDefinition<sup>®</sup> Duration FLEX<sup>®</sup> and TruDefinition<sup>®</sup> Duration STORM<sup>®</sup> Shingles require ImpactRidge<sup>™</sup> Hip & Ridge Shingles to complete UL 2218, Class IV impact-resistant roof system.
- \*\*\* 110 MPH is standard with 4-nail application. 130 MPH is applicable only with 6-nail application and Owens Corning<sup>®</sup> Starter Shingle products application along eaves and rakes in accordance with installation instructions.

## WARRANTY REGISTRATION & TRANSFER INFORMATION

#### TO REGISTER THIS WARRANTY:

#### Visit our website at: www.owenscorning.com/roofing/warranty/

The following information is required for registration:

Owens Corning<sup>®</sup> Limited Lifetime Shingle/color name installed \_

Number of squares installed \_

#### Other Owens Corning® Roofing Shingles and Components Installed:

	yes	no	don't know
Owens Corning <sup>®</sup> Hip & Ridge Shingles			
VentSure® Ventilation Products			
Owens Corning® brand, RhinoRoof® U20 or Titanium® brand Underlayment Products			
Owens Corning® Starter Shingle Products			
Owens Corning® WeatherLock®, Titanium®, or RhinoRoof® Self-Adhered Ice & Water Barrier Products			
Other Owens Corning® Products			
Original Installation Date			
Original Purchaser's Name			
Address of Property			

**Note:** Please retain proof of purchase and installation date with your important records in the event that you choose to transfer this warranty in the future, or upload these documents as you register this warranty online.

#### TO TRANSFER THIS WARRANTY:

#### See TRANSFERABILITY OF THIS WARRANTY for exceptions.

#### Contact 1-800-ROOFING

For this warranty to be transferred, the second Owner must contact 1-800-ROOFING within sixty (60) days after the date of the real estate transfer to obtain the benefits of this warranty and must have the following:

- 1. Proof of purchase of the Owens Corning® Total Protection Roofing System®^ and
- 2. The installation date and ownership history



OWENS CORNING ROOFING AND ASPHALT, LLC ONE OWENS CORNING PARKWAY TOLEDO OH 43659 USA

1-800-GET-PINK<sup>®</sup> www.owenscorning.com/roofing Titanium<sup>®</sup> PSU30 is a secondary water barrier for use on steep slope roofs under asphalt shingles, composite shingles, metal, concrete and clay tile, slate, and wood shakes. Titanium<sup>®</sup> PSU30 is a flexible, high temperature premium self-adhered underlayment designed with the patented Sure-Foot<sup>®</sup> nodular walking surface technology that allows for easier steep slope walkability, even in wet or dusty conditions.

It's tough, durable, coated woven synthetic facer and rubberized asphalt formulation is engineered to lay flat and not buckle or wrinkle when exposed to temperature and moisture fluctuations on the roof.

PSU30 is designed full roof deck waterproof protection with 180 day UV exposure rating. Titanium PSU30 used in conjunction with Titanium UDL30 synthetic roofing underlayment provides complete roof deck protection from the brand contractors know and trust.

PSU30 provides a surface that will help protect the underside of the metal from natural movement without causing damage to the underneath of metal roofing systems, compared to other underlayments that could cause damage to metal roofing systems including making them susceptible to premature corrosion.

# **PREMIUM PROTECTION** SECONDARY WATER BARRIER

## **HIGH TEMPERATURE RATED**

Designed and engineered to withstand high temperatures (240°F / 115°C) in metal applications

# **STRONG DECK ADHESION**

The modified rubberized asphalt provides a superior combination of low temperature deck adhesion and high temperature flow resistance

# WATERTIGHT LAP SYSTEM

PSU30 provides a self-sealing lap seal system which forms an impervious asphalt to asphalt bond at overlapping seams, delivering superior waterproofing protection.

# **SAFER SLIP RESISTANCE**

Our patented Sure-Foot<sup>®</sup> nodular surface provides excellent walkability and slip resistance even in wet or dirty conditions.

### **TITANIUM PSU30 ROLL SPECS**

 LENGTH PER ROLL:
 72' / 22 m

 WIDTH PER ROLL:
 36" / 0.914 cm

 WEIGHT PER ROLL:
 48 lbs / 21.8 kg

 GROSS ROLL SIZE:
 216 sq ft / 20 m²

 NET OF OVERLAP:
 2 sq / 18.58 m²

 ROLLS PER PALLET:
 25

 PALLET WEIGHT:
 1,300 lbs / 590 kg

- Split-release liner
- · Watertight asphalt to asphalt horizontal lap system
- Up to 180 days UV exposure rating
- Meets or exceeds ASTM D1970
- ASTM E108 Class A Fire Resistance when installed under asphalt shingles
- PSU30 is approved for use with ICP AH-160 and RTA-1, and Dow TileBond foam adhesives
- Florida Product Approval
- All temperature performance -20°F to 240°F
- Installation temperature 40°F and above
- Synthetic construction inert to mold growth

# TITANIUM PSU30 TECHNICAL DATA

TEST & STANDARD <sup>+</sup>		TITANIUM PSU30 TYPICAL VALUE		
COLOR		Gray		
SURFACE		Synthetic Polymer - Patented Sure-Foot® slip resistant nodula		
RELEASE LINER		Silicone treated, poly split release		
WEIGHT PER SQUARE		24 lbs / (10.8 kg)		
NAIL SEALABILITY	ASTM D1970	Pass		
PERMEABILITY	ASTM E96	0.0336		
NOMINAL THICKNESS	ASTM D5147	45 Mil (1.1 mm)		
TENSILE	ASTM D1970	MD 100 lbs/in/ (17.5 kN/m) CD 80 lbs/in (14 kN/m)		
THERMAL STABILITY	ASTM D1970	240° F (115° C) Pass		
LOW TEMP FLEXIBILITY	ICC AC 48	Pass		
TEAR RESISTANCE	ASTM D1970	MD 140 / CD 100 lbf (622/445 N)		
ADHESION TO PLYWOOD	ASTM D903	4 lb/in (700 N/m)		

#### TITANIUM<sup>®</sup> Synthetic Roofing Underlayment

Charleston, SC • Mission, BC • Montréal, QC Email: answers@owenscorning.com Toll Free: 800.567.9727 eavetopeak.com

\*Titanium brand products are manufactured in accordance with national standards which allow for non-critical variances in weights and measurements. Test data is based on an average taken over several production runs and should not be considered or interpreted as maximum or minimum values. Values are typical data and not limiting specifications. All values ± 10%. © 2021 Owens Corning. All Rights Reserved. Pub No. 10021442-E April 2021



PREMIUM HIGH TEMPERATURE SELF-ADHERED UNDERLAYMENT FOR PROTECTION FROM SHINGLE BLOW-OFF, WIND-DRIVEN RAIN AND ICE DAMMING

### FOR USE UNDER:

# ASPHALT, METAL, TILE, SLATE, SHAKE & COMPOSITE SHINGLES





Patented Sure-Foot nodular walking surface





# **PSU30 INSTALLATION INSTRUCTIONS**

# **CAUTION**

Read and understand all instructions and precautions before applying Titanium<sup>®</sup> PSU30 underlayment. Check local building codes prior to application of this product. Follow the recommendations of the roof covering manufacturer, Asphalt Roofing Manufacturer'sAssociation (for asphalt shingles), Tile Roof Institute (for clay orconcrete roof tiles), and the Metal Roofing Alliance (for metal roof panels).

# DECK PREPARATION

The deck must be clean, smooth and dry before applying Titanium<sup>®</sup> PSU30 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

PSU30 self-adhered underlayment can be installed over Plywood, OSB, FRT Plywood, Polyisocyanurate foam insulation board, metal (galvalume steel), 30lb felt, PSU30, pre-wrapped sheathing, DensDeck<sup>®</sup> and USG Securock<sup>®</sup> Primer is not required on clean, dry deck surfaces, except for gypsum boards (DensDeck<sup>®</sup> and USG Securock<sup>®</sup> roof boards) for which appropriate primer or adhesive is recommended at temperatures ≤ 40F.

# **2** DECK EDGE PREPARATION

Along eaves, install metal drip edge under the Titanium<sup>®</sup> PSU30 underlayment unless otherwise directed by local building codes. Along rakes, apply Titanium<sup>®</sup> PSU30 underlayment first, and put drip edge on top.

# TILE ROOF

# TILE LOADING TABLE

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.

Files in Stack	Stacking Pattern	Tile Type	Maximum Roof Pitch
10	10 Linear	Flat	5:12
10	10 Linear	Profiled	6:12

Note: When installing Titanium<sup>®</sup> PSU30 underlayment over the entire roof deck, proper ventilation is required. Consult a design professional and local building codes for ventilation requirements.

# METAL ROOF INSTALLATION

### Slopes 2:12 and greater

Follow standard installation instructions below.

#### Slopes $\frac{1}{2}$ :12 - less than 2:12

For standing seam metal roof panels follow standard installation instructions below with the following modifications: End Laps must be min. 6 feet apart in adjacent courses. 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<sup>®</sup> PSU30 underlayment and cut into manageable lengths no more than 15 20 feet.
- 3. Allow it to relax for 3-5 minutes before installing.
- 4. Reroll each section.
- 5. Start at the eaves, laying the Titanium<sup>®</sup> PSU30 parallel to the eaves edge, with the lower edge of the Titanium<sup>®</sup> PSU30 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.

- 6. After installation of each piece, remove the release lining from the selvage and, if necessary, secure with nails installed in the selvage spaced 6 inches on center. This fastening is required when Titanium<sup>®</sup> PSU30 is installed on slopes of 3:12 or greater. Consult local building codes for fastener requirements.
- 7. The entire roof surface should be rolled after installation of the Titanium<sup>®</sup> PSU30 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.
- 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® PSU30 underlayment can be cut lengthwise for easier handling. For maximum protection, the roll width should remain intact and extend 18 inches on either side of the valley. Remove the release backer and press Titanium® PSU30 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® PSU30 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® PSU30 underlayment with finish roof covering. Do not allow Titanium® PSU30 underlayment to remain uncovered. Exposure to sun and weather for more than 180 days may adversely affect this product's performance.
- 2. Titanium<sup>®</sup> PSU30 underlayment should be installed by a professional roofing contractor.
- Titanium<sup>®</sup> PSU30 underlayment is a moisture and vapor barrier. The spaces under the covered deck area and the attic space must be ventilated in accordance with local building codes.
- 4. Titanium<sup>®</sup> PSU30 underlayment is intended for exterior roof application only and is not intended for use on vertical surfaces.
- Apply PSU30 directly to the roof deck. Allowable roof deck materials are shown in Section 1 of these instructions. Do not apply Titanium<sup>®</sup> PSU30 over another layer of underlayment unless required by local codes.
- 6. Roof coverings should not be installed over wrinkled or buckled Titanium® PSU30 underlayment.
- Use extreme caution when installing Titanium<sup>®</sup> PSU30 underlayment. The Titanium<sup>®</sup> PSU30 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).
- 8. For best results, apply Titanium® PSU30 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® PSU30 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® PSU30 underlayment is cool. Once cooled, the release backing can be easily removed.
- Store Titanium<sup>®</sup> PSU30 underlayment in a dry, well-ventilated area. Stand Titanium<sup>®</sup> PSU30 underlayment upright. Do not store at 90°F (32°C) or warmer for extended periods of time. Do not store in direct sunlight.
- 10. When applying Titanium<sup>®</sup> PSU30 underlayment, always follow local building codes and the roof covering manufacturer's instructions for installation of this product.
- 11. When working on the roof, use all necessary safety precautions and guidelines in accordance with proper roofing trade practices.