44

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. Statewide approved products are listed online @ www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
1. EXTERIOR DOORS			
A. SWINGING			
B. SLIDING			
C. SECTIONAL/ROLL UP			
D. OTHER			
2. WINDOWS			
A. SINGLE/DOUBLE HUNG			
B. HORIZONTAL SLIDER			
C. CASEMENT			
D. FIXED			
E. MULLION			
F. SKYLIGHTS			
G. OTHER			
3. PANEL WALL			
A. SIDING			
B. SOFFITS			
C. STOREFRONTS			
D. GLASS BLOCK			
E. OTHER			
4. ROOFING PRODUCTS			
A. ASPHALT SHINGLES			
B. NON-STRUCTURAL METAL			
C. ROOFING TILES			
D. SINGLE PLY ROOF			
E. OTHER Metal	Tri County Metals		4595.18 R5
5. STRUCTURAL COMPONENTS			
A. WOOD CONNECTORS			
B. WOOD ANCHORS			
C. TRUSS PLATES			
D. INSULATION FORMS			
E. LINTELS			
F. OTHERS			
6. NEW EXTERIOR ENVELOPE PRODUCTS			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.
Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.

Contractor OR Agent Signature Date

NOTES: _____

Force Engineering & Testing
19530 Ramblewood Drive
Humble, Texas 77338
Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com

Product Evaluation Report

TRI COUNTY METALS

29 Ga. Ultra-Rib Roof Panel over 7/16" OSB

Florida Product Approval # 4595.18 R5

Florida Building Code 2020
Per Rule 61G20-3
Method: 1 –D

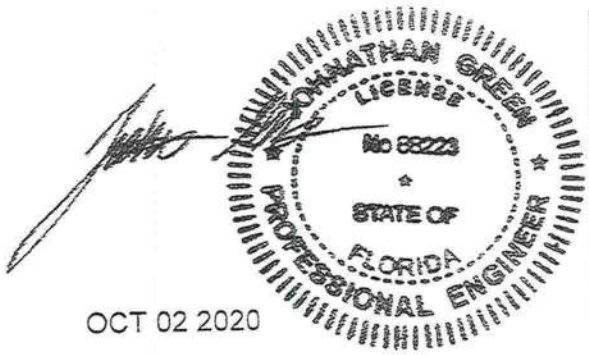
Category: Roofing
Subcategory: Metal Roofing
Compliance Method: 61G20-3.005(1)(d)
NON HVHZ

Product Manufacturer:
Tri County Metals
301 SE 16th Street
Trenton, Florida 32693

Engineer Evaluator:
Johnathan Green, P.E. #88223
Florida Evaluation ANE ID: 12901

Validator:
Brian Jaks P.E.#70159

Contents:



OCT 02 2020

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Compliance Statement:

The product as described in this report has demonstrated compliance with the Florida Building Code 2020, Sections 1504.3.2, 1504.7.

Product Description:

Ultra-Rib Roof Panel, Min. 29 Ga. Steel, 36" Wide, through fastened roof panel over one layer of asphalt shingles (optional) over 7/16" APA OSB decking. Non-Structural Application.

Panel Material/Standards:

Material: Minimum 29 Ga. Steel conforming to Florida Building Code 2020 Section 1507.4.3.
Yield Strength: Min. 80.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2020, Section 1507.4.3.

Panel Dimension(s):

Thickness: 0.0145" min.
Width: 36" maximum coverage
Rib Height: ¾" major rib at 9" O.C.

Panel Fastener:

#12-8 x 1-1/2" Woodgrip XG HWH with sealing washing or approved equal
¼" minimum penetration through decking.
Corrosion Resistance: Per Florida Building Code 2020, Section 1507.4.4.

Substrate Description:

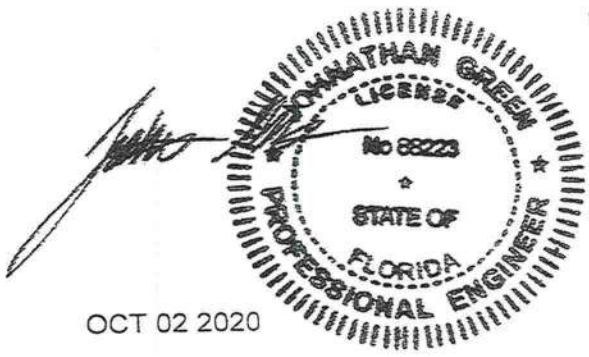
One layer of asphalt shingles/felt paper (optional) over minimum 7/16" thick, APA Rated OSB over supports at maximum 24" O.C. Design of OSB and OSB supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2020.

Allowable Design Uplift Pressures:

Table "A"

Maximum Total Uplift Design Pressure:	41.7 psf	123.5 psf
Fastener Pattern Type:	#1	#2
Fastener Pattern:	9"-9"-9"-9"	6"-3"-6"-3"-6"-3"-6"
Fastener Spacing:	24" O.C.	12" O.C.

*Design Pressure includes a Safety Factor = 2.0.



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Code Compliance:

The product described herein has demonstrated compliance with The Florida Building Code 2020, Section 1504.3.2, 1504.7.

Evaluation Report Scope:

The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2020, as relates to Rule 61G20-3.

Performance Standards:

The product described herein has demonstrated compliance with:

- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
- UL 1897-2012 - Uplift Test for Roof Covering Systems
- FM 4471-92 - Foot Traffic Resistance Test.

Reference Data:

1. UL 580-06 / 1897-04 Uplift Test
   Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
   Report No. 136-0044T-14A, B
2. FM 4471-10, Section 4.4 Foot Traffic Resistance Test
   Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
   Report No. 136-0027T-12C
3. Certificate of Independence
   By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing
   (FBC Organization # ANE ID: 12901)

Test Standard Equivalency:

The UL 1897-04 test standard is equivalent to the UL 1897-2012 test standard.

The FM 4471-10, Foot Traffic Resistance test standard is equivalent to the FM 4471-92, Foot Traffic Resistance test standard

Quality Assurance Entity:

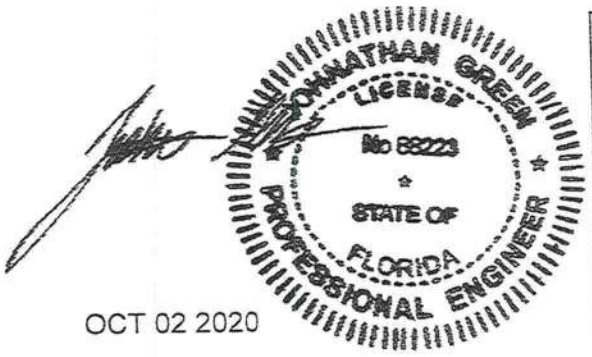
The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

Minimum Slope Range:

Minimum Slope shall comply with Florida Building Code 2020, including Section 1507.4.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps.

Installation:

Install per manufacturer's recommended details.



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Underlayment: Per Florida Building Code 2020, Section 1507.1.1 and manufacturer's installation guidelines.

Roof Panel Fire Classification: Fire classification is not part of this acceptance.

Shear Diaphragm: Shear diaphragm values are outside the scope of this report.

Design Procedure: Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2020 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2020 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

JOHNATHAN GREEN LICENSE No 88223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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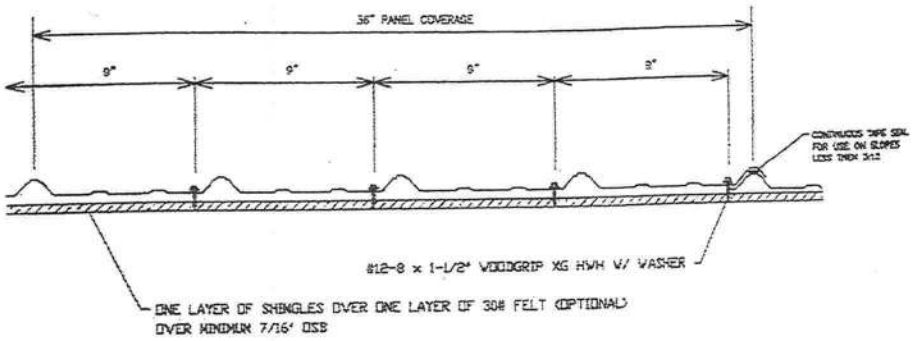
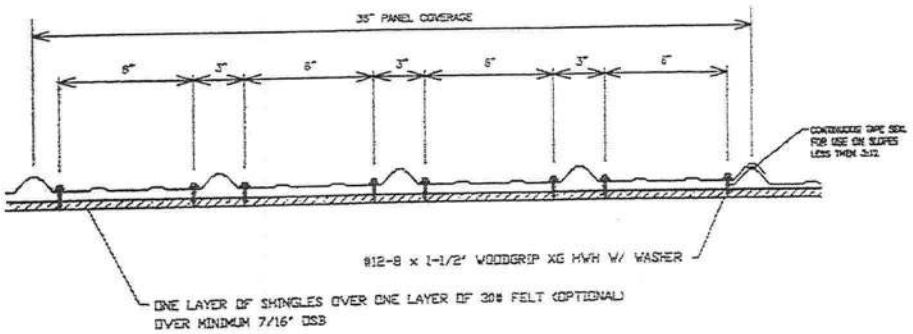
MINIMUM 29 GA. ULTRA-RIB PANEL
TYPE #1 FASTENER PATTERN AT 24" O.C.



MINIMUM 29 GA. ULTRA-RIB PANEL
TYPE #2 FASTENER PATTERN AT 12" O.C.



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FL# 4595.18 R5

LeakBarrier® SS400 Ice and Water Armor

LeakBarrier SS400 Ice and Water Armor is a self-adhesive modified bituminous roofing underlayment reinforced with a heavy weight fiberglass mat for use under tile, slate, and asphalt shingles. Glass fiber reinforcement on the upper surface provides enhanced skid resistant properties.

Usage

LeakBarrier SS400 Ice and Water Armor helps to protect a building's deck or internal structure against leaks caused by ice and water damming and wind-driven rain. It is highly effective in critical roofing areas such as valleys, ridges, coping joints, chimneys, vents, dormers, skylights and low-slope sections.

Features and Benefits

- Lightweight – Easy to carry and install
- Skid resistant glass fiber surface provides improved footing
- Split-back release film peels off for easy installation and handling
- 30 day exposure limit
- Adheres directly to concrete, plywood, wood composition board, and gypsum sheathing
- Self-sealing around nails, preventing moisture penetration
- Packaged in paper wrappers. No bulky (empty) boxes to dispose of.
- Meets ASTM D1970
- Miami-Dade County Approval NOA No. 12-0420.02
- Florida Building Code FL 10450-R4

Storage

- SS400 rolls must be stored indoors, in a dry location.
- Rolls must be stored on ends only. Do not store in a leaning position.
- The rolls must be protected from the elements. Do not expose to direct sunlight.
- Store rolls at room temperature. Prolonged exposure to the elevated temperatures may reduce the adhesive characteristics of the membrane.

General Precautions

- Install SS400 only when material interface temperatures (air, deck, material) are 40°F and rising.
- Do not install when any form of moisture such as water, ice, snow, dew, rain, etc. is present.
- Ensure roof has proper drainage prior to installation.
- Proper ventilation is critical. When applying over the entire roof deck, the roofing system must provide sufficient ventilation, including both ridge and soffit venting.
- A full, irreversible adhesion is achieved when the underlayment goes through a complete heat cycle. Do not attempt to remove the underlayment immediately after adhesion to the substrate.
- Use of a hand-held "hot air gun" might help in enhancing the adhesion during application of underlayment in cooler weather.
- SS400 must be covered with a finished roof covering within the specified exposure time of the product. Refer to the section on Features and Benefits for exposure time.

Surface Preparation

- Surface must be clean, dry, and without voids that may interfere with adhesion.
- For re-roofing, all old roofing and other loose materials must be removed prior to installation.
- Acceptable substrates for adhesion of LeakBarrier membranes can be found at the Tarco website.
- For best results, surface may be primed with an ASTM D 41 Primer prior to installation of SS400. When primer is used, ensure the primer is fully dry prior to application of SS400.

LeakBARRIER®

Application

- Cut SS400 roll to suitable, manageable lengths before installation.
- Place a full width piece of the pre-cut SS400 underlayment on the substrate, parallel to the eave (low) edge of the roof.
- Align SS400 so that it is parallel with the edge of the eave and extend over the eave and rake approximately 3/8".
- Fold back the sheet, and remove the exposed release film, taking care not to displace the sheet.
- Working from the center out, roll the sheet onto the substrate, taking care to avoid wrinkles and ridges. SS400 must be set straight. Repeat this process for the remaining half of the sheet.
- Apply a 1/16" thick layer of roofing lap cement over the eave and rake metal drip edges extending 2" to 3" onto the deck surface where the roll will intersect.
- Apply the next eave course in the same manner overlapping the first course at the end lap by 6".
- Lap the succeeding course over the lap area.
- Apply succeeding courses in like manner, as in steps above.
- Stagger the end laps a minimum 3' from the preceding course.
- Install capped or tin tagged nails 6 inches on center in the middle of the selvage edge (side lap) or fasten according to applicable Building Codes.
- At the T-joint (where an end lap and next overlapping course intersect), apply a bead of roofing lap cement before the overlapping course is laid.
- Roll the entire membrane surface, paying special attention to side laps, end laps and T-joints. Roller weight shall be 70 lb minimum for low slope (≤2:12 pitch) and 28 lb minimum for steep slope (>2:12 pitch).

Properties

Property	Typical Values	Reference Test
Tensile strength, MD & XMD	25 lbf/in	ASTM D 1970
Elongation, mod. lit. portion	10% min	ASTM D1970
Adhesion to plywood @ 40°F	2 lb/ft of width	ASTM D1970
Adhesion to plywood @ 75°F	15 lb/ft of width	ASTM D1970
Thermal stability, max	0.1 inch	ASTM D1970
Flexibility temperature	-20°F	ASTM D1970
Tear Resistance, MD & XMD	20 lbf	ASTM D1970
Slip Resistance	Pass	ASTM D1970
Moisture Vapor Permeance	0.1 U.S. Perms (max)	ASTM D1970

Product Data	
Width	36 in
Length	66 ft
Weight	50 lb *(nominal)*
Thickness	48 mil *(nominal)*
Gross Coverage	2 Sq

Warranty SS400 Ice and Water Armor is warranted to be free from manufacturer's defects.

Tarco
One Information Way, Suite 225 • Little Rock, AR 72202
Voice: 501-945-4506 • 800-365-4506
Fax: 501-945-7718 • www.tarcoroofing.com

LeakBARRIER