

Code Compliance Research Report CCRR-0271

Issue Date: 05-30-2018 Renewal Date: 05-30-2019

DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES

Section: 06 50 00 – Structural Plastics Section: 06 53 00 – Plastic Decking

REPORT HOLDER:

Resysta North America, Inc. 4035 Cheyenne Court Chino, CA 91710 909-393-2888

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REPORT SUBJECT:
Resysta Gold Decking
Resysta Platinum Decking

1.0 SCOPE OF EVALUATION

- **1.1** This Research Report addresses compliance with the following Codes:
- 2015 International Building Code® (IBC)
- 2015 International Residential Code® (IRC)
- 2017 Florida Building Code (see Section 9), Including HVHZ
- 2016 California Building Code (see Section 9)
- **1.2** Resysta Decking has been evaluated for the following properties:
- Structural Performance
- Durability
- Surface Burning
- Decay Resistance
- Termite Resistance
- **1.3** Resysta Gold and Platinum deck boards are intended for use as a walking surface on exterior decks, balconies, porches, and walkways, including stairs as further defined herein. The deck boards identified in this report may be used in One- and Two-Family Dwellings regulated by the IRC and other construction types regulated by the IBC in accordance with IBC Section 1406.3 as follows:

- **1.3.1** Construction Type IIB, IIIB & VB per IBC §1406.3 and Table 601 (No fire resistance rating required for floors); and
- **1.3.2** Construction Type IIIA, IV & VA per IBC §1406.3, Exception 3 (Sprinkler protection required).

2.0 STATEMENT OF COMPLIANCE

Resysta deck boards comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

3.0 DESCRIPTION

- 3.1 Materials and Processes
- **3.1.1** *Resysta* deck boards are mono-extruded, hollow, ribbed, composite deck boards consisting of polyvinyl chloride and rice hull filler.
- 3.2 Profiles
- **3.2.1** Gold deck boards have a hollow cross-section with nominal dimensions of 1" tall and 5.5" wide. The deck boards are finished with a simulated wood-grain pattern.
- **3.2.2** *Platinum* deck boards have a hollow cross-section with nominal dimensions of 1" tall and 5.5" wide. The deck boards are finished with a series of small grooves on the top surface.

4.0 PERFORMANCE CHARACTERISTICS

- **4.1** Resysta deck boards are rated for a uniform live load of 100 lb/ft² when installed on support framing spaced at 16 inches on-center. Snow load ratings are identified in Table 1.
- **4.2** Resysta deck boards used as stair treads are rated for the code-prescribed concentrated load equal to 300 lb when installed with a maximum span indicated in Table 1. Deck boards used as stair treads shall be installed in a minimum two-span condition.



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- **4.3** Resysta deck boards are rated for wind uplift resistance with fastening systems as identified in Table 1, and described in Table 2.
- **4.4** Materials used in the deck boards have a flame spread index not greater than 200, when tested in accordance with ASTM E84, as required by ICC-ES AC174.
- **4.5** Materials are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, attack from termites and fungus decay.
- **4.6** Structural performance has been demonstrated for a temperature range from -20°F to 125°F for live load and -20°F to 70°F for snow load.

5.0 INSTALLATION

5.1 General:

Resysta decking must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 *Resysta* deck boards are fastened with the fastening systems as described in Table 1.

6.0 CONDITIONS OF USE

- **6.1** Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.
- **6.2** The *Resysta* decking is manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

- **7.1** Manufacturer's drawings and installation instructions.
- **7.2** Reports of testing in accordance with ICC-ES AC174, Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails), revised December 2014.

- **7.3** Reports of testing and engineering evaluation demonstrating compliance with the performance requirements of ASTM D 7032-08, Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails).
- **7.4** Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

8.0 IDENTIFICATION

The *Resysta* decking are produced in accordance with this report shall be identified with labeling on the individual deck boards that includes the following information:

- 8.1 the manufacturer's name (Resysta) or trademark
- **8.2** The following statement: "See Intertek CCRR-0271 at whdirectory.intertek.com"
- **8.3** The packaging of deck boards shall also be identified with the Intertek identification mark and Code Compliance Research Report number (CCRR-0271).



9.0 OTHER CODES

9.1 FLORIDA BUILDING CODE

9.1.1 Scope of Evaluation:

The *Resysta* decking was evaluated for compliance with the Florida Building Code – Building and Florida Building Code – Residential.



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9.1.1.1 Sufficient weathering resistance of plastics with outdoor exposure when tested to ASTM G 155 and ASTM D 2565 for a period of 4500 hours and subsequent testing demonstrating compliance with FBC Section 2615.2.

9.1.2 Conclusion:

The *Resysta* decking, described in Sections 2.0 through 7.0 of this Research Report, comply with the *Florida Building Code — Building* and *Florida Building Code — Residential*, subject to the following conditions:

• Use of the *Resysta* decking for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code – Building* and the *Florida Building Code – Residential* has been evaluated, and is within the scope of this Research Report.

9.2 CALIFORNIA BUILDING CODE

9.2.1 Scope of Evaluation:

The Resysta decking was evaluated for compliance with the California Building Code and California Residential Code.

9.2.2 Conclusion:

The *Resysta* decking, described in Sections 2.0 through 7.0 of this Research Report, comply with the California Building Code and California Residential Code.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

- **10.1** Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.
- **10.2** Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.
- **10.3** Reference to the https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

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Table 1 -	Snan an	d Unlift	Resistance	Ratings
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Span / Load Ratings (1) Deck Board		Maximum	Fastener ⁽³⁾	Wind Uplift	
реск воага	Live Load	Snow Load	Stair Tread Span ⁽²⁾	rastener	Resistance (4)
Gold 16" / 100 psf 16" /			Plastic Hidden Fastener System	150 psf ⁽⁵⁾	
	16" / 100 psf	16" / 200 psf	12" Span	GripRite PrimeGuard Max® stainless steel deck screw (6)	150 psf
Platinum 16		16" / 200 psf	12" Span	Plastic Hidden Fastener System	147 psf ⁽⁵⁾
	16" / 100 psf			GripRite PrimeGuard Max® stainless steel deck screw (6)	150 psf

⁽¹⁾ Span/Load rating is the maximum span in inches and the maximum allowable load (live, and snow) in pounds per square feet (psf). The maximum allowable loads indicated include applicable end use factors. No additional adjustments should be taken.

- (5) The starting exterior deck boards are face fastened through the bottom wall of the deck board with one #10 x 2-1/2" (0.174" major dia., 0.115" minor dia., 0.130" shank dia., 0.339" head dia.) stainless steel deck screw at each joist. See Figure 3 for installation
- (6) The deck boards are face fastened through the bottom wall of the deck board with two stainless steel deck screws at each joist.

Table 2 - Fastener Descriptions

Fastener System	Description
Plastic Hidden Fastener System (Figure 3)	Installed with one #10 x 2-5/8" (0.165" major dia., 0.115" minor dia., 0.130" shank dia., 0.230" head dia.) <i>GripRite PrimeGuard Max</i> * stainless steel deck screw.
GripRite PrimeGuard Max [®] stainless steel deck screw	#10 x 2-1/2" (0.174" major Dia., 0.115" minor dia., 0.130" shank dia., 0.339" head dia.)





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⁽²⁾ Stair tread span is based on a continuous deck board over two or more equal spans (3 supports).

⁽³⁾ See Table 2 for fastener descriptions.

⁽⁴⁾ Wind uplift resistance is based on installation as described in Section 5.0. Values have been adjusted for wind load duration and end use. No further adjustments shall be made.





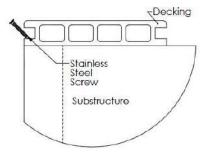
Figure 1 - Gold Decking



Figure 2 – *Platinum* Decking



Plastic Hidden Fastener Clip



45 degree start/end installation

Figure 3 – Resysta™ Gold and Resysta™ Platinum Deck Board Fasteners

