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DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES
Section: 06 50 00 – Structural Plastics
Section: 06 53 00 – Plastic Decking

REPORT HOLDER:

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REPORT SUBJECT:

TimberTech® Decking Planks
(Wood-Plastic Composite Deck Boards)
DockSider™ Plank
Legacy Solid Plank
Legacy Grooved Plank
ReliaBoard Plank
Terrain Solid Plank
Terrain Grooved Plank
Tropical Solid Plank
Tropical Grooved Plank
TwinFinish® Solid Plank
TwinFinish® Grooved Plank

1.0 SCOPE OF EVALUATION

1.1. This Research Report addresses compliance with the following Codes:

- 2015 and 2012 *International Building Code®* (IBC)
- 2015 and 2012 *International Residential Code®* (IRC)

1.2. TimberTech® Decking Planks have been evaluated for the following properties:

- Structural Performance
- Durability
- Surface Burning
- Decay Resistance
- Termite Resistance

1.3. TimberTech® Decking Planks are intended for use as a walking surface on exterior decks, balconies, porches, and walkways, including stairs in the following construction types:

- Type IIB, IIIB & VB
- TYPE IIIA, IV and VA where sprinkler protection is provided (IBC Section 1406.3 Exception 3)

2.0 STATEMENT OF COMPLIANCE

TimberTech® Decking Planks 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 – *DockSider™*, *ReliaBoard*, and *TwinFinish®* Planks are composed of a solid, co-extruded, fully capped, wood-plastic composite (WPC) core with a WPC cap. *Legacy*, *Terrain*, and *Tropical* are composed of a solid, co-extruded, fully-capped, wood-plastic composite (WPC) core with a polymer cap.

3.2. Profiles – TimberTech® Decking Planks have a solid cross-section, solid cross-section with grooves, and contoured cross-section profiles. See Table 2 for product descriptions and Figures 1 through 6.

3.3. Walking Surface – The TimberTech® Decking Planks are finished with a textured, embossed wood pattern.

4.0 PERFORMANCE CHARACTERISTICS

4.1. Uniform Live Load ratings are given in Table 1 for the corresponding deck boards and fasteners indicated.

4.2. 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 2. Deck boards used as stair treads shall be installed in a minimum two-span condition.



4.3. Wind Uplift Resistance ratings are given in Table 1 for the corresponding deck boards and fasteners indicated.

4.4. Materials used in the TimberTech Decking Planks 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 used are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, attack from Formosan termites and fungus decay.

4.6. Structural performance has been demonstrated for a temperature range from -20°F (-29°C) to 125°F (52°C).

5.0 INSTALLATION

Installation shall be in accordance with the manufacturer's installation instructions and this report. Where differences occur between this report and the manufacturer's installation instructions, this report shall govern.

5.1. TimberTech® Decking Planks shall be installed with fastening as indicated in Table 1.

6.0 CONDITIONS OF USE

The TimberTech® Decking Plank applications identified in this report are deemed to comply with the intent of the provisions of the referenced building codes subject to the following conditions.

6.1. 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:

Construction Type IIB, IIIB & VB per IBC Section 1406.3 and Table 601 (No fire resistance rating required for floors)

Construction Type IIIA, IV & VA per IBC Section 1406.3, Exception 3 (Sprinkler protection required)

6.2. Deck boards placed at an angle other than 90 degrees to the supporting joist will require support framing at a reduced spacing such that the span of the deck board does not exceed the span identified in Table 3.

6.3. The wind uplift resistance rating recognized in this report is based on attachment to treated Southern Pine framing (specific gravity, G=0.55). Installation on wood framing with a lesser specific gravity may result in a lower wind uplift rating.

6.4. Where required by the building official, engineering calculations and details shall be provided. The calculations shall verify that the anchorage complies with the building code for the type of framing and condition of the supporting construction.

6.5. Compatibility of the supporting construction materials with all fasteners, metal post mount components and other hardware components is subject to approval by the code official.

6.6. Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the TimberTech® Decking Planks; other methods of attachment are outside the scope of this report.

6.7. Deck boards recognized in this report have been evaluated for use in areas subject to Formosan termite attack.

6.8. All products recognized by this report are manufactured in Wilmington, Ohio by CPG International, LLC in accordance with the manufacturer's approved quality control system with inspections by Architectural Testing (IAS AA-676).

7.0 SUPPORTING EVIDENCE

7.1. Manufacturer's drawings and installation instructions.

7.2. Reports of testing demonstrating compliance 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 demonstrating compliance with ICC-ES AC109, Acceptance Criteria for Thermoplastic Composite Lumber Products, effective July 1, 2006.



7.4. Reports of testing and engineering analysis demonstrating compliance with the performance requirements of ASTM D 7032-10a, Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails).

7.5. Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

8.0 IDENTIFICATION

TimberTech® Decking Planks are produced in accordance with this report shall be identified with labeling on the individual deck boards that includes the following information:

8.1. Name and/or trademark of the manufacturer.

8.2. The following statement: "ASTM D 7032. See Intertek CCRR-0128 at <https://whdirectory.intertek.com>."

8.3. The Intertek Code Compliance Research Report mark and number (CCRR-0128).

9.0 CODE COMPLIANCE RESEARCH REPORT USE

9.1. 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.

9.2. Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

9.3. 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 – Span and Uplift Resistance Ratings

Decking Plank	Span/Load Rating ¹	Stair Tread Span ²	Fastener ³	Wind Uplift Resistance ³
<i>DockSider™</i>	24/200	21"	#8 x 3" Deck Screw	220 lb/ft. ²
<i>Legacy Solid</i>	18/100	10"	#10 x 2-1/2" <i>TOPLoc</i> Steel Deck Screw	393 lb/ft. ²
			2-1/2" <i>GripRite PrimeGuard®</i> Plus Screw	393 lb/ft. ²
<i>Legacy Grooved</i>	18/100	Not Permitted ⁴	1.6" long trim head stainless steel screw <i>CONCEALoc®</i> Hidden Fastener System	184 lb/ft. ²
<i>ReliaBoard</i>	16/100	9"	#8 x 2-1/2" Deck Screw	340 lb/ft. ²
<i>Terrain Solid</i>	18/100	16"	#10 x 2 x 2-1/2" <i>TOPLoc™</i> Steel Deck Screw	464 lb/ft. ²
			2-1/2" <i>GripRite PrimeGuard®</i> Plus Screw	575 lb/ft. ²
<i>Terrain Grooved</i>	18/100	Not Permitted ⁴	1.6" long trim head stainless steel screw <i>CONCEALoc®</i> Hidden Fastener System ⁶	170 lb/ft. ²
<i>Tropical Solid</i>	16/100	10"	#8 x 2-1/2" <i>Headcote™</i>	436 lb/ft. ²
			#10 x 2-3/4" <i>FastenMaster®</i>	436 lb/ft. ²
			#10 x 2-1/2" <i>TOPLoc™</i>	436 lb/ft. ²
<i>Tropical Grooved</i>	16/100	Not Permitted ⁴	<i>CONCEALoc®</i> Hidden Fastener System ⁶	147 lb/ft. ²
			<i>FUSIONLoc™</i> Hidden Deck fastener with 2" pneumatic scrails (16 TPI, 0.113" shank dia., 0.258" head dia.). Starter board (edge) face-fastened with (1) #8 x 2-1/2" stainless steel trim-head <i>Headcote™</i> screw	170 lb/ft. ²
<i>TwinFinish® Solid</i>	24/100	12"	#8 x 3" Deck Screw	220 lb/ft. ²
<i>TwinFinish® Grooved</i> ⁵	24/100	Not Permitted ⁴	1.6" long trim head stainless steel screw <i>CONCEALoc®</i> Hidden Fastener System ⁶	104 lb/ft. ²

¹ Span/Load rating is the maximum span in inches and the maximum allowable live load in pounds per square feet (psf).

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

³ Wind uplift resistance is based on two fasteners at each support (wood joist) except *Grooved* Planks which use one hidden fastener located at each joist. Values have been adjusted for wind load duration and end use. No further adjustments shall be made.

⁴ *Grooved* Deck Planks are not used as stair treads.

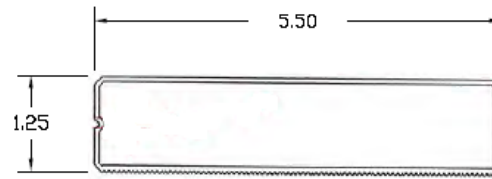
⁵ Mono-Extruded and Co-Extruded values are the same.

⁶ Alternatively, grooved deck boards may be face fastened with the fasteners recognized for the relevant solid deck board.



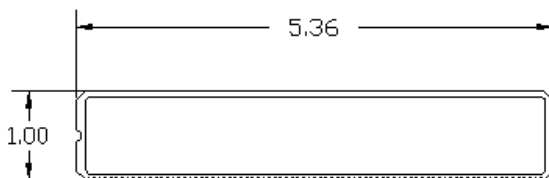
Table 2 – Deck Board Descriptions and Colors

Decking Plank	Description	Color(s)
<i>DockSider™</i>	1.25" x 5.5" Solid cross-section with beveled corners.	Grey and Cedar
<i>Legacy Solid</i>	0.938" x 5.360" solid cross section with beveled edges	Mocha, Pecan, Tigerwood Ashwood
<i>Legacy Grooved</i>	0.938" x 5.360" solid cross section with beveled corners. Longitudinal side grooves are 0.212" x 0.400 deep for CONCEALoc® hidden fasteners "	
<i>ReliaBoard</i>	0.938" x 5.4" Solid cross-section with 0.092" with beveled corners and 3 - 0.20" deep longitudinal grooves on the underside.	Grey and Cedar
<i>Terrain Solid</i>	0.938" x 5.360" cross section with two bottom longitudinal grooves 0.437" deep and separated by 0.980" rib. Top corners have radiuses. Bottom surface corners have beveled corners.	Brown Oak, Silver Maple, Sandy Birch, Rustic Elm and Stone Ash
<i>Terrain Grooved</i>	0.937" x 5.360" cross section with two bottom longitudinal grooves 0.437" deep and separated by 1.010" rib. longitudinal side grooves are 0.212 x 0.400" deep for CONCEALoc® hidden fasteners. Top corners have radiuses. Bottom corners are beveled.	
<i>Tropical Solid</i>	0.938" x 5.360" Solid cross-section with beveled corners	Antique Palm, Caribbean Redwood, Amazon Mist, Antigua Gold
<i>Tropical Grooved</i>	0.938" x 5.36" Solid cross-section with beveled corners and the bottom surface corners having 0.165" x 45° beveled corners. Longitudinal side grooves are 0.212" x 0.400" deep for CONCEALoc® hidden fasteners.	
<i>TwinFinish® Grooved</i>	1.0" x 5.4" Solid cross-section with 0.09" with beveled corners.	Grey, Cedar, Redwood
<i>TwinFinish® Grooved</i>	1.0" x 5.4" Solid cross-section with 0.09" with beveled corners and 0.212" x 0.400" deep longitudinal side grooves for CONCEALoc® hidden fasteners.	

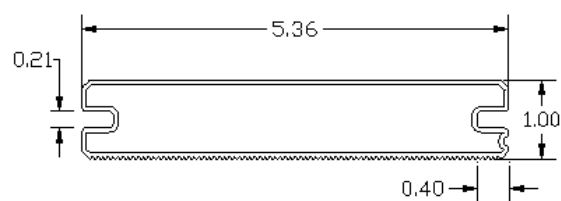


Co-Extruded

Figure 1 – DockSider™ Plank



Solid



Grooved

Figure 2 – Co-Extruded Solid and Grooved TwinFinish® Plank

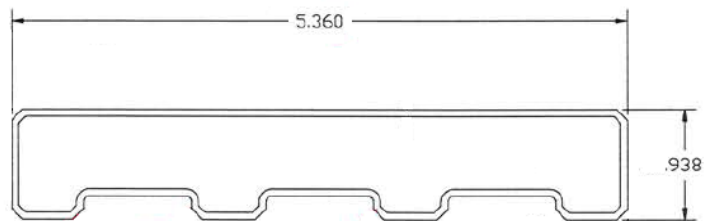
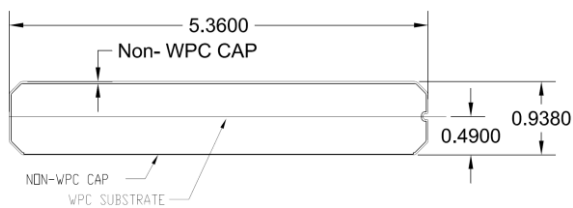
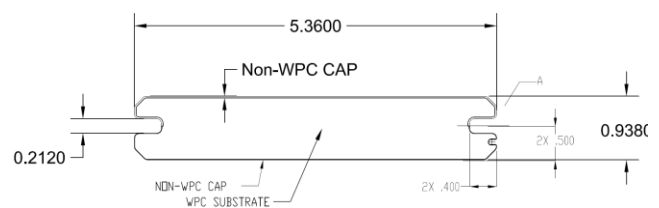


Figure 3 – ReliaBoard Deck Board Profile



Solid



Grooved

Figure 4 – Tropical Solid & Grooved Deck Board Profiles

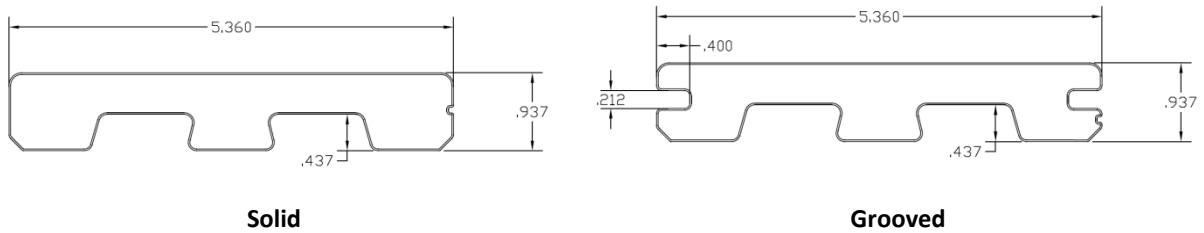


Figure 5 – Terrain Solid & Grooved Deck Board Profiles

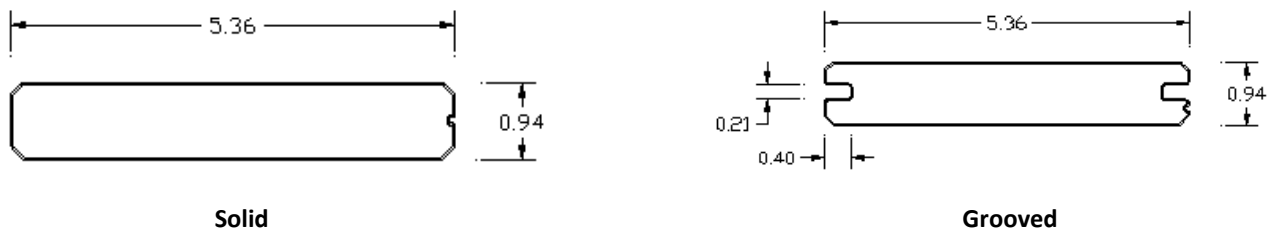
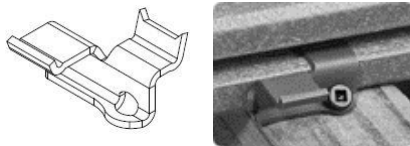


Figure 6 – Legacy Decking



CONCEALoc® Hidden Fastener Clip



FusionLoc™ Hidden Fastener



FastenMaster® Cortex



TOPLoc™ Face Fastener

Figure 7 – Fasteners