

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

REPORT HOLDER:

CPG International, LLC d\b\A AZEK Building Products, Inc.
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Wilmington, OH 45177
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REPORT SUBJECT:

AZEK ARBOR Collection®
AZEK Harvest® Collection®
AZEK Porch Boards
AZEK Vintage Collection®

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 AZEK Decking (Deck and Porch Boards) have been evaluated for the following properties:

- Structural Performance
- Durability
- Surface Burning

1.3 AZEK Decking (Deck and Porch Boards) 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

AZEK Decking (Deck and Porch 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 - AZEK Decking are composed of a solid co-extruded cellular polyvinyl chloride (PVC) with a polymer cap. Harvest and Arbor collections are semi-capped (capped on three sides), and the Vintage collection is fully capped in cross section.

3.1.1. AZEK Porch Boards are produced in five colors: Brownstone, Morado®, Silver Oak®, Oyster®, and Slate Gray.

3.1.2. AZEK Harvest® Collection® deck boards are produced in five colors: Autumn Chestnut™, Brownstone, Island Oak™, Kona®, and Slate Gray.

3.1.3. AZEK ARBOR Collection® deck boards are produced in six colors: Acacia®, Brazilian Walnut, Hazelwood, Morado®, Mountain Redwood™, and Silver Oak®.

3.1.4. AZEK Vintage Collection® deck boards are produced in three colors: Cypress, Dark Hickory, and Mahogany.

3.2 The walking surface is embossed with a simulated wood grain.

3.3 AZEK Porch Boards measure 1" thick with a 3.2" exposure width (3.415" overall width). See Figure 1.

3.4 AZEK ARBOR Collection®, Harvest® Collection®, Vintage Collection™ deck boards have a rectangular profile 1" thick and 5.5" wide. The grooved deck boards have a 0.390" deep by 0.213" tall groove. See Figure 2.

4.0 PERFORMANCE CHARACTERISTICS

4.1 AZEK Decking are rated for a uniform live load of 100 lbs/ft² when installed on support framing spaced at 16" on center. This live load rating also applies to deck boards and porch boards installed diagonal to the support framing (45° max.) with 12" on center maximum joist spacing.



4.2 AZEK Deck and porch boards used as stair treads shall be installed on a minimum of a two-span condition and are rated for the code-prescribed concentrated load equal to 300 lbs when installed in accordance with Table 3.

4.3 AZEK Decking has wind uplift resistance ratings as indicated in Table 2 when installed on support framing spaced at 16 inches on center.

4.4 AZEK Decking is deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, attack from termites and fungus decay.

4.5 AZEK Decking structural performance has been demonstrated for a temperature range of -20° F to 125° F.

4.6 AZEK Decking has a flame spread index not exceeding 200 when tested in accordance with ASTM E 84.

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 AZEK Decking shall be installed with fastening as indicated in Table 2.

5.2 AZEK porch boards used as stair treads shall be installed as shown in Figure 4.

5.3 AZEK deck boards used as stair treads shall be installed as shown in Figures 4, 5, and 6. See Table 3 for maximum stair tread spans.

5.4 AZEK Deck and porch may be installed diagonal to support framing up to maximum of 45° with 12" o.c. maximum joist spacing.

6.0 CONDITIONS OF USE

The AZEK Decking 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 and porch 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 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.

6.3 AZEK Decking shall be fastened directly to supporting construction. Conventional wood supporting structure is not within the scope of this report and is subject to the evaluation and approval by the building official. Design and construction of supporting structure must satisfy the design load requirements of Chapter 16 of the IBC.

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 The compatibility of all fasteners with supporting structure, including chemically treated wood, is not within the scope of this report and subject to approval by the code official.

6.6 AZEK Decking recognized in this report are manufactured in accordance with the manufacturer's approved quality control system with inspections by Intertek. See Table 1 for approved manufacturing locations.

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 and ASTM D 7032.



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

8.0 IDENTIFICATION

AZEK Decking 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 manufacturer

8.2 The following statement: “ASTM D7032. See Intertek CCRR-0101 at <https://whdirectory.intertek.com> for uses and performance levels.”

8.3 Packaging of deck boards shall also be identified with the Intertek identification mark and Code Compliance Research Report number (CCRR-0101) as shown:



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 – Manufacturing Locations

Products	Manufacturing Location
AZEK Porch Boards	Moosic, Pennsylvania
AZEK ARBOR Collection®	Moosic, Pennsylvania
AZEK Harvest® Collection®	Wilmington, Ohio
AZEK Vintage Collection®	Wilmington, Ohio

Table 2 – Fastening Schedule and Wind Rating

Product	Fastening Description	Wind Uplift Resistance
AZEK Porch Board	(1) #8 x 2-1/2" stainless steel trim-head <i>Headcote™</i> screw @ 45° through root of tongue into each joist	294 psf
	(1) 16 GA x 2" <i>Simpson Strong-Tie L Series</i> Stainless Steel Flooring Cleat at 45° through root of tongue into each joist	102 psf
AZEK Harvest® Collection® AZEK ARBOR Collection® AZEK Vintage Collection®	(2) #8 x 2-1/2" stainless steel trim-head <i>Headcote™</i> screw into each joist	351 psf
	(2) #10 x 2-1/2" <i>TOPLoc™</i> stainless steel screw into each joist	593 psf
	(2) <i>OMG FastenMaster® Cortex</i> concealed fasteners each joist (#8 x 2-3/4" screws)	486 psf
	<i>CONCEALoc™</i> Hidden Deck fastener with 1-1/2" pneumatic screws. Starter board (edge) face-fastened with (1) #8 x 2-1/2" stainless steel trim-head <i>Headcote™</i> screw	135 psf
	<i>HIDfast</i> hidden fastener (13 GA x 2-1/2") with (1) #8 x 2-1/2" stainless steel trim-head <i>Headcote™</i> screw at each joist for the starter (edge) board.	119 psf
	<i>FUSIONLoc™</i> Hidden Deck fastener with 2" pneumatic screws. Starter board (edge) face-fastened with (1) #8 x 2-1/2" stainless steel trim-head <i>Headcote™</i> screw	186 psf
	<i>EdgeFast</i> hidden fastener (14 GA x 2-1/4" long) installed through the groove of the board and into each joist at 45°	146 psf

⁽¹⁾ Wind uplift resistance ratings for installation on support framing spaced at 16 inches on center.



Table 3 – Stair Tread Span Ratings

Product	Maximum Stair Tread Span	Installation
AZEK Porch Board	11"	See Figure 4 for installation details.
AZEK Harvest® Collection® AZEK ARBOR Collection® AZEK Vintage Collection®	10"	See Figure 4 for installation details.
	17.25"	2X6 additional supports. See Figure 5 for installation details.
	24"	2X4 additional supports. See Figure 6 for installation details.

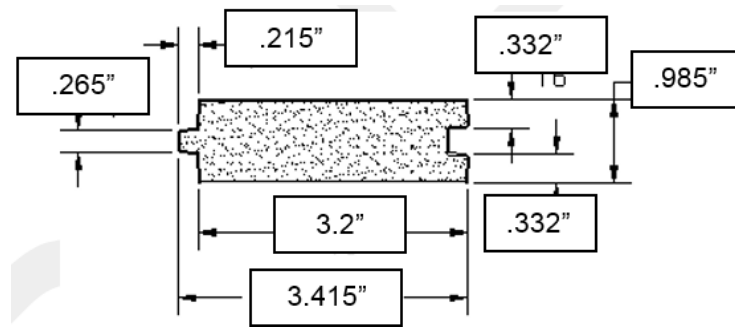


Figure 1 – AZEK Porch Board

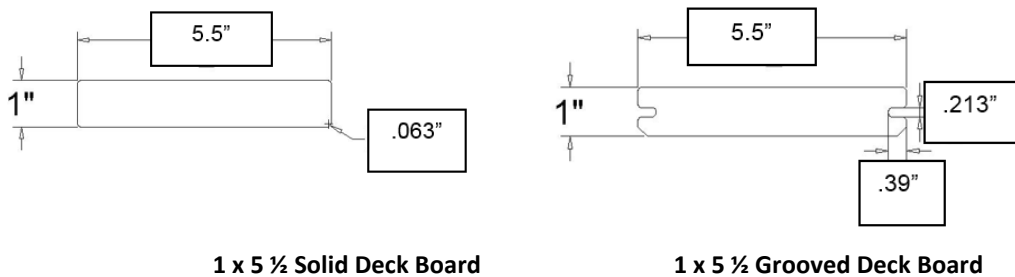
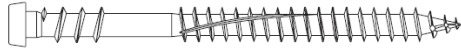
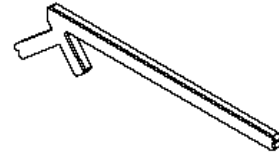


Figure 2 – AZEK Harvest® Collection®, ARBOR Collection®, and Vintage Collection®



FastenMaster® Cortex



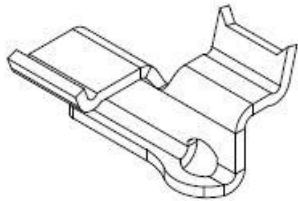
HidFast Fastener



TOPLoc™ Face Fastener



EdgeFast Fastener



CONCEALoc™ Hidden Fastener



FusionLoc™ Hidden Fastener

Figure 3 – Fasteners

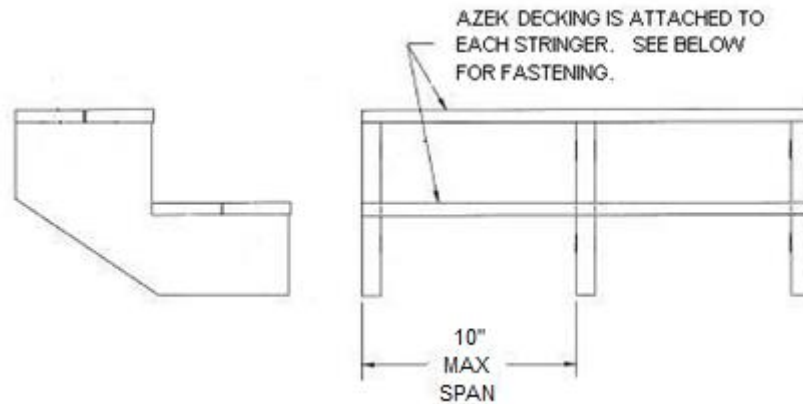


Figure 4 – Stair Tread Installation with no additional support (Minimum tread length is 36")

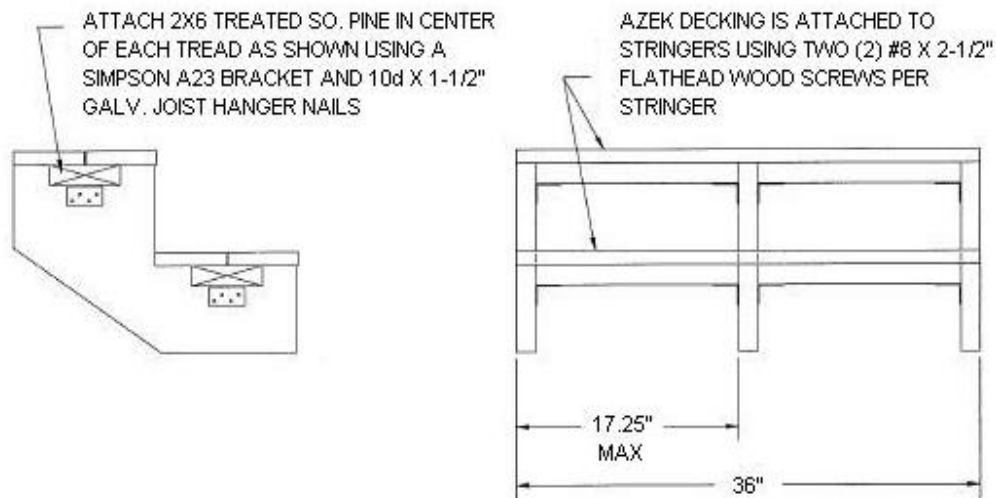


Figure 5 – Alternate 1 X 5-1/2 Stair Tread Installation for 17.25" Span (2X6 additional support)

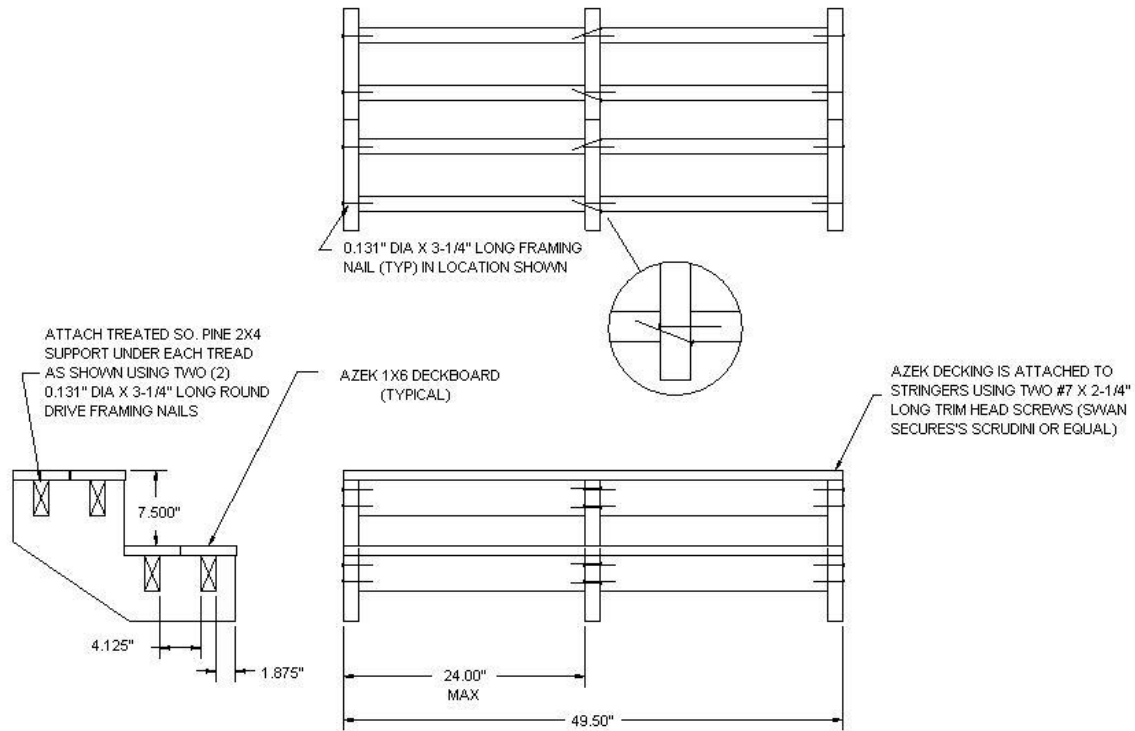


Figure 6 – Alternate 1 X 5-½ Stair Tread Installation for 24" Span (2X4 additional supports)