

DO KIM & ASSOCIATES, LLC
CONSULTING STRUCTURAL ENGINEERS

Florida Board of Engineers Certificate of Authorization No. 26887

Product Evaluation Report

Date: October 9, 2020

Florida Product Approval: **#FL 9190-R9**

Product Category: Panel Walls

Product sub-category: Siding

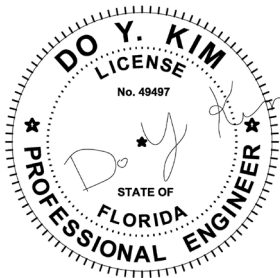
Product Name: LP SmartSide Strand Substrate Siding

Manufacturer: LP Building Solutions
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325

Scope:

This product evaluation report issued by Do Kim & Associates, LLC and Do Kim, P.E. for LP Building Solutions is based on Florida Department of Business and Professional Regulation Rule 61G20-3 Method (2) (b) of the State of Florida Product Approval. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or updates.

Do Kim & Associates, LLC and Do Kim, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein. This product has been evaluated for use in locations adhering to the Florida Building Code 7th Edition (FBC).



Do Y
Kim

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by Do Y Kim
Date: 2020.10.09
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Do Kim, P.E.
FL #49497

Supporting Documents

1. Drawings and Reports:
 - a. Application Instructions, LP SmartSide Siding
 - b. APA-The Engineered Wood Association Product Report PR-N124, Revised July 2, 2020.
 - c. Joint Evaluation Report ESR-1301, ICC Evaluation Service, LLC, ICC-ES, 800-423-6587, 562-699-0543, www.icc-es.org and APA Product Report, APA-The Engineered Wood Association, Tacoma, WA, Reissued April 2020.
 - d. LP Building Solutions Technical Note No.014, Installing LP Smartside Trim and Lap Siding on Concrete or Masonry Walls over Furring Strips.
 - e. LP Building Solutions Technical Note No.028, LP Smartside 38 Series Strand Substrate Vertical Siding for Board & Batten Application.

2. Testing
 - a. Approved test lab: Architectural Testing, Inc., 130 Derry Court, York, PA 17406. Test reports referenced:
 - i. Report No. 79279.01-122-18 (01/07/08)
 1. Testing per Miami-Dade County Checklist #0475 For the Approval of: Durability of Wood-base Structural Composite Lumber and Panels
 2. ASTM D4761-02 Standard Test Methods for Mechanical Properties of Lumber and Wood-Based Structural Material.
 3. ASTM D1761-06 Standard Test Methods for Mechanical Fasteners in Wood.
 - ii. Report No. 78294.01-401-18 (12/03/07)
 1. TAS 202-94, Criteria for Testing Impact and Non-Impact Resistant Building Envelope Components Using Uniform Static Air Pressure Loading. Design Pressure @ +/-57.6 psf.
 2. TAS 203-94, Criteria for Testing Products Subject to Cyclic Wind Pressure Loading. Design Pressure @ +/-57.6 psf.

3. Calculations
 - a. Standards referenced:
 - i. ICC Evaluation Service, Inc. Acceptance Criteria for Treated-Engineered-Wood Siding, AC321, April 2019 (strand substrate engineered wood products).

4. LP SmartSide Model Product Names
 - a. LP SmartSide is manufactured in Strand.

5. Application Instructions
 - a. Strand Substrate Models:
 - i. Installation fastening requirements as outlined in the APA PR-N124 and Joint Evaluation Report ESR-1301 documents have been reviewed and evaluated by Do Kim, P.E. based on comparative and/or rational analysis and has been determined to be in accordance to accepted engineering practice. Installation loads per APA PR-N124 and Joint Evaluation Report ESR-1301 shall be the minimum design pressures as determined in accordance to the FBC 7th Edition (FBC).

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6. Applicable FBC Sections
 - a. Chapter 14 Exterior Walls
 - i. Section 1404.1 General
 - ii. Section 1405.2 Weather Protection
 - iii. Section 1405.5 Wood Veneers
 - iv. Section 1405.17 Fastening
 - b. Chapter 16 Structural Design
 - i. Section 1604.3.1 Deflections
 - ii. Section 1609.1 Applications
 - iii. Section 1616.3.1 HVHZ Allowable Deflections
 - c. Chapter 23 Wood
 - i. Section 2304.6 Exterior Wall Sheathing
 - ii. Section 2304.6.1 Wood Structural Panel Sheathing
 - iii. Section 2315.1.11
7. Other
 - a. Quality Assurance of LP SmartSide Strand Substrate products by APA - The Engineered Wood Association (FBC Organization #QUA2521) that manufacturer is within a quality assurance program for this product under Rule 61G20-3.

Limitations and Condition of Use

1. This product has been designed and tested in accordance to the Florida Building Code 7th Edition (FBC).
2. No missile impact resistance testing has been conducted.
3. Each product listed above shall be installed in strict compliance with its respective Product Evaluation Document along with all components noted herein.
4. Use of each product shall be in strict accordance with its Product Approval Evaluation Documents.
5. Fire-resistant construction: Wood structural panels that are not fire-treated have been shown to meet a Class III (or C) category for flame spread. Where otherwise specified, fire-resistant construction shall be in accordance with the recommendations in APA Product Guide: Fire-Rated Systems, Form W305.
6. Deflection limits and allowable spans per Product Approval Evaluation Documents are in accordance to L/120 in non-HVHZ per Chapter 16 Table 1604.3 deflection limits. Deflection limits and allowable spans per Product Approval Evaluation Documents are in accordance to L/180 in HVHZ per Chapter 16 Section 1616.3.1 deflection limits.
7. All supporting host structures shall be designed to resist all superimposed loads.
8. All components which are permanently installed shall be protected against corrosion, contamination, and other such damage.