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DIVISION: 06 00 00 - WOOD, PLASTIC, AND COMPOSITES

Section: 06 11 13 Engineered Wood Products

REPORT HOLDER:

Woodtone Specialties Inc.

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REPORT SUBJECT:

RealPost™ and AbsolutePost™ Wood Columns

1.0 SCOPE OF EVALUATION

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

- 2025, 2020 National Building Code of Canada (NBCC)

NOTE: This report references the most recent Code editions noted. Section numbers in earlier editions may differ .

1.2 RealPost™ and AbsolutePost™ wood columns have been evaluated for the following properties (see Table 1):

- Structural

1.3 RealPost™ and AbsolutePost™ wood columns as described in this report are intended for use in construction as an alternative to a solid wood column⁽¹⁾ in accordance with the conditions stated in this report.

⁽¹⁾ *RealPost™ and AbsolutePost™ wood columns are not evaluated as an alternative to solid wood columns identified in NBCC Section 3.1.4.7 as heavy timber with respect to fire resistance.*

2.0 STATEMENT OF COMPLIANCE

RealPost™ and AbsolutePost™ wood columns when used in accordance with the conditions stated in this report, comply with the NBCC in accordance with the following:

- Clause 1.2.1.1.(1)(b), Division A, as an alternative solution that achieves at least the minimum level of performance

required by Division B in the areas defined by the objectives and functional statements attributed to the following applicable acceptable solutions:

- Sentence 4.3.1.1.(1) Design Basis for Wood, CSA-086-24, “Engineering Design in Wood”
- Article 9.17.4.2., Materials (Wood Columns)

3.0 DESCRIPTION

3.1 RealPost™ and AbsolutePost™: RealPost™ are manufactured from Spruce Pine Fir (SPF) and AbsolutePost™ from Western Red Cedar (WRC) lumber that has been finger-jointed, edge-laminated, and pressed into columns. The RealPost™ and AbsolutePost™ columns are offered in nominal sizes of 4×4, 6×6, and 8×8 inches, with actual dimensions of 3-1/2 × 3-1/2, 5-1/2 × 5-1/2, and 7-1/4 × 7-1/4 inches respectively (see Table 2 for properties). The columns have lengths up to 40 feet. The adhesives used for finger-jointing lumber and laminating of posts conform with CSA O112.9-10 and CSA 0112.7.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Structural Load-Bearing: Column design strengths for axial compressive loads provided in Tables 3 and 4 are in accordance with CSA O86, *Engineering Design in Wood*. Factored loads determined in accordance with NBCC Division B, Part 4.1.3.2 shall not exceed the factored resistance in Tables 3 and 4.

5.0 INSTALLATION

5.1 General: RealPost™ and AbsolutePost™ 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 Application: RealPost™ and AbsolutePost™ are intended to be used as light structural columns for load-bearing and non-load-bearing columns under normal temperature and dry service conditions where the moisture content in use will not exceed 19%. Structural load-bearing columns are limited to use in buildings permitted to be combustible construction in the sizes and lengths shown in



Tables –2 - 4. Non-load-bearing columns may be any size and length manufactured for architectural appearances only.

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 product is intended for structural applications in dry service use only. “Dry service” is defined as the in-service environment under which the equilibrium moisture content (MC) of lumber does not exceed 19% at any time. During construction, all columns shall be protected from the weather to ensure that the 19% MC is not exceeded in accordance with Article 9.3.2.5., Moisture Content, of Division B of the NBCC.

Note: The Canadian Wood Council’s (CWC) Wood Design Manual states that, “wood contained within the interior of dry, heated or unheated buildings has generally been found to have a MC between 6% and 14% according to season and location. As a rule wood that is used in exterior construction in protected or semi-protected locations, such as under roof or porch canopies or overhangs, or in location where it is wet only for short periods and dry most of the time, will have an equilibrium moisture content of not more than 15%, and dry design strength may be used.”

6.3 Columns are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Manufacturer’s specifications / installation instructions.

7.2 Reports of testing demonstrating compliance with ASTM D5456-21e1 [14b], Standard Specification for Evaluation of Structural Composite Lumber Products, as referenced in CAN/CSA-O86.

7.3 Reports of testing demonstrating compliance with CSA O112.9-21 [10], “ Evaluation of Adhesives for Structural Wood Products (Exterior Exposure),” and CSA 0112.7, “Resorcinol and Phenol-Resorcinol Resin Adhesives for Wood (Room- and Intermediate-Temperature Curing),” as referenced in CAN/CSA-O86.

7.4 Engineering analysis demonstrating compliance with the CAN/CSA O86-24 [19, -14], *Engineering Design for Wood*.

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

8.0 IDENTIFICATION

Wood columns described in this Research Report are identified by marking bearing the report holder’s name (Woodtone Specialties), the Intertek CCRR Mark, and Code Compliance Research Report number (CCRR-1102C).



9.0 OTHER CODES

This section is not applicable.

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 – PROPERTIES EVALUATED

PROPERTY	APPLICABLE CODE SECTIONS ¹
	NBCC
Structural	4.3.1.1. Design Basis for Wood (CSA O86 – 2024) 9.17.4 Wood Columns

¹Section numbers pertain to the most recent edition cited in Section 1.1 of this Report

TABLE 2 – REALPOST™ AND ABSOLUTE™ POST PROPERTIES

Mechanical Property	4X4		6X6		8X8	
Size (inches)	3.5x3.5		5.5x5.5		7.25x7.25	
Area (in ²)	11.79		23.01		32.94	
Moment of Inertia, I (in ⁴)	12.49		71.89		198.1	
Radius of Gyration, r	1.03		1.77		2.45	
Strength and stiffness	SPF	WRC	SPF	WRC	SPF	WRC
f_c (PSI)	2,245	2,485	2,245	2,485	2,165	2,395
E (PSI)	1.17x10 ⁶	1.20x10 ⁶	1.17x10 ⁶	1.20x10 ⁶	1.17x10 ⁶	1.20x10 ⁶
E_{05} (PSI)	875,000	864,000	875,000	864,000	875,000	864,000

Load Tables(3-4) Notes:

- Factored loads determined in accordance with NBCC Division B, Part 4.1.3.2 shall not exceed the factored resistance loads given in Tables 2 and 3.
- Loads are based on the following:
 - Dry service conditions where the moisture content in use will be a maximum of 19%
 - Standard term load duration, $K_D=1.00$ (snow or live load is greater than dead load)
 - Concentric load distributed uniformly over the entire column width.
- Horizontal loading or side loads not permitted

TABLE 3 – REALPOST™ (SPF) COLUMN

Length (ft)	Axial Factored Resistance, ϕR (lbs)		
	4X4	6X6	8X8
4	22330	51374	72953
6	15420	46523	70234
8	9622	39297	65481
10	5940	31286	58909
12	3781	23990	51237
14	-	18099	43357
16	-	13642	35991
18	-	10364	29546
20	-	7972	24146
22	-	-	19739
24	-	-	16195





TABLE 4– ABSOLUTEPOST™ (WESTERN RED CEDAR) COLUMN

Length (ft)	Axial Factored Resistance, ϕR (lbs)		
	4x4	6x6	8x8
4	24165	56565	80546
6	16207	50674	77204
8	9874	42128	71432
10	6005	32964	63594
12	3790	24887	54648
14	-	18546	45680
16	-	13850	37493
18	-	10452	30479
20	-	8000	24706
22	-	-	20065
24	-	-	16378

