Code Compliance Research Report
CCRR-1102

Issue Date: 12-20-2017
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DIVISION: 06 00 00 - WOOD, PLASTIC, AND COMPOSITES
Section: 06 11 13 Engineered Wood Products

REPORT HOLDER:
Woodtone Specialties Inc.
4175 Crozier Road
Armstrong, BC V0E 1B6
Canada
www.woodtonespecialties.com

REPORT SUBJECT:
RealPost™ and AbsolutePost™

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)

NOTE: This report references 2015 Code sections with [2012] Code sections shown in brackets where they differ.

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

- Structural

1.3 RealPost and AbsolutePost have been evaluated for the following uses (see Table 1):

- Structural wood-based products as alternative to sawn lumber
- Columns for load-bearing and non-load-bearing applications

2.0 STATEMENT OF COMPLIANCE

RealPost and AbsolutePost 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 RealPost and Absolute Post: RealPost columns are manufactured from SPF and AbsolutePost from Western red cedar lumber that has been finger-jointed, edge-laminated, and pressed into columns. The columns are offered in nominal sizes of 4 × 4, 6 × 6, and 8 × 8 inches, with actual dimensions, respectively, of 3-1/2 × 3-1/2, 5-1/2 × 5-1/2, and 7-1/4 × 7-1/4 inches. The columns have lengths up to 40 feet. The adhesives used for finger-jointing lumber and laminating of posts conform with ASTM D2559 and ASTM D7247.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Structural Load-Bearing: Columns were tested for compression parallel to the grain. Calculated allowable column loads are based upon ANSI/AWC NDS-2015 National Design Specification (NDS) Chapter 3.6 Compression Members.

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 in buildings of combustible construction under normal temperature service conditions where the moisture content in use will be a maximum of 19%, regardless of the moisture content at the time of manufacture. Allowable design loads for axial capacity are shown in Tables 2 and 3. Structural load-bearing columns are limited to the sizes and lengths shown in Tables 2 and 3, intended for axial loading only. Non-load-bearing columns may be any size and length manufactured for architectural appearance around structural supports.

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 Allowable loads in Tables 2 and 3 assume untreated application and normal temperature where the moisture content in use will be a maximum of 19%, with factors being 1.00. For other conditions see NDS-2015. No further increases are permitted for other load duration factors. Structural design must be in accordance with Section 4.1 of this report where design loads determined in accordance with the IBC and IRC, as applicable, must not exceed the loads show in Tables 2 and 3.

6.3 RealPost and AbsolutePost are for above ground use. Wet service conditions are beyond the scope of this report. Columns are used only in buildings of Type V-B construction under the IBC, and buildings constructed under the IRC; and for Type III-B construction under the IBC where combustible building elements are allowed.

6.4 Columns are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc. (AA-647).

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM D5456.

7.2 Data in accordance with the ICC-ES Acceptance Criteria for Structural Wood-Based Products AC47 – June 2017 for Advanced Engineered Lumber.

8.0 IDENTIFICATION

Columns are identified with the manufacturer's name (Woodtone), address and telephone number, the product name (RealPost or AbsolutePost), the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-1102).

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.

TABLE 1 - PROPERTIES EVALUATED

PROPERTY	2015 IBC SECTION[1]	2015 IRC SECTION[1]
Compression parallel to the grain	2303.1.10	R502.1.5, R602.1.5, R802.1.4

[1] Section numbers may be different for earlier versions of the International codes.

TABLE 2 – COLUMN CENTRICAL AXIAL ALLOWABLE LOAD (LBS), NORMAL DURATION (100%)[1, 2, 3]

Length (ft)	Moisture Content 12%					
	SPF			Western Red Cedar		
	4 × 4	6 × 6	8 ×8	4 × 4	6 × 6	8 ×8
4	18016	39999	56386	19509	44171	62288
6	11228	36247	51633	11719	39676	56661
8	6744	30415	44642	6980	32552	48078
10	4409	23063	35044	4553	24167	36888
12	3092	17068	26366	3190	17731	27447
14	2284	12902	20064	2355	13357	20793
16	1755	10031	15646	1809	10366	16181
18	1390	7999	12500	1432	8259	12911
20	1127	6519	10197	1162	6727	10525
22	n/a	5410	8469	n/a	5581	8738
24	n/a	4560	7142	n/a	4703	7366

Moisture Content 15%

Length (ft)	SPF			Western Red Cedar		
	4 × 4	6 × 6	8 ×8	4 × 4	6 × 6	8 ×8
4	16691	36209	51010	18247	40280	56788
6	10976	33130	47068	11510	36581	52084
8	6692	28591	41633	6935	30910	45288
10	4392	22387	33768	4538	23609	35820
12	3085	16823	25893	3184	17527	27054
14	2280	12795	19860	2352	13267	20622
16	1753	9976	15545	1807	10320	16095
18	1388	7968	12443	1431	8233	12862
20	1126	6500	10162	1161	6710	10496
22	n/a	5398	8446	n/a	5570	8718
24	n/a	4552	7126	n/a	4695	7353

TABLE 2 - CONTINUED[1, 2, 3]
Moisture Content 19%

Length (ft)	SPF			Western Red Cedar		
	4 × 4	6 × 6	8 ×8	4 × 4	6 × 6	8 ×8
4	14912	31577	44442	16234	34745	48919
6	10544	29177	41360	11089	31965	45362
8	6603	25956	37451	6848	28054	40639
10	4363	21253	31684	4509	22490	33723
12	3072	16398	25074	3171	17116	26259
14	2274	12614	19512	2346	13088	20283
16	1749	9885	15374	1803	10230	15926
18	1386	7917	12348	1429	8182	12768
20	1125	6469	10106	1160	6679	10439
22	n/a	5378	8410	n/a	5550	8682
24	n/a	4538	7102	n/a	4682	7328

[1] The cross-sectional areas for the columns are as follows: 4 × 4 = 11.79 in^2; 6 × 6 = 23.00 in^2; 8 × 8 = 23.94 in^2
[2] Horizontal loading is not permitted
[3]Allowable loads assume untreated application and normal temperature service conditions where the moisture content in use will be a maximum of 19%, with factors being 1.00. For other conditions see NDS-2015. No further increases are permitted for other load duration factors.

TABLE 3 – COLUMN ECCENTRICAL AXIAL ALLOWABLE LOAD (LBS), NORMAL DURATION (100%)[1, 2, 3]

Length (ft)	Moisture Content 12%					
	SPF			Western Red Cedar		
	4 × 4	6 × 6	8 ×8	4 × 4	6 × 6	8 ×8
4	9062	19556	28098	9264	20077	28890
6	6696	17288	26090	6804	17684	26804
8	4767	14630	23763	4850	14898	24337
10	3485	11937	21148	3553	12130	21575
12	2637	9658	18376	2693	9821	18680
14	2057	7882	15726	2103	8025	15983
16	1646	6514	13437	1684	6641	13666
18	1345	5455	11538	1377	5568	11746
20	1118	4627	9969	1146	4726	10156
22	n/a	3968	8336	n/a	4056	8551
24	n/a	3436	7082	n/a	3516	7269

TABLE 3 - CONTINUED[1, 2, 3]

Moisture Content 15%

Length (ft)	SPF			Western Red Cedar		
	4 × 4	6 × 6	8 ×8	4 × 4	6 × 6	8 ×8
4	8814	18836	26969	9062	19469	27936
6	6628	16782	25148	6753	17270	26002
8	4749	14364	23054	4836	14691	23733
10	3479	11831	20672	3547	12050	21198
12	2634	9614	18109	2691	9786	18484
14	2055	7860	15591	2101	8008	15885
16	1644	6501	13371	1683	6630	13614
18	1344	5447	11499	1377	5561	11715
20	1118	4621	9944	1146	4722	10136
22	n/a	3964	8336	n/a	4053	8549
24	n/a	3433	7082	n/a	3514	7267

Moisture Content 19%

Length (ft)	SPF			Western Red Cedar		
	4 × 4	6 × 6	8 ×8	4 × 4	6 × 6	8 ×8
4	8426	17771	25319	8684	18404	26281
6	6504	16000	23723	6642	16506	24582
8	4718	13906	21939	4807	14270	22651
10	3467	11638	19894	3537	11877	20458
12	2629	9534	17652	2685	9713	18068
14	2052	7821	15359	2098	7971	15668
16	1643	6480	13251	1681	6610	13499
18	1343	5434	11429	1375	5549	11651
20	1117	4613	9902	1145	4713	10096
22	n/a	3958	8336	n/a	4047	8547
24	n/a	3429	7082	n/a	3509	7265

[1] The cross-sectional areas for the columns are as follows: 4 × 4 = 11.79 in^2; 6 × 6 = 23.00 in^2; 8 × 8 = 23.94 in^2

[2] Horizontal loading is not permitted. End loads are limited to a max. eccentricity of 0.60 in. for 4 × 4 column, 1.06 in. for 6 × 6, and 1.49 in. for 8 × 8 column.

[3] Allowable loads assume untreated application and normal temperature service conditions where the moisture content in use will be a maximum of 19%, with factors being 1.00. For other conditions see NDS-2015. No further increases are permitted for other load duration factors.