

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
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REPORT SUBJECT:

RealPost™, RealPost Laminated™, and AbsolutePost™

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021 and 2018 *International Building Code*® (IBC)
- 2021 and 2018 *International Residential Code*® (IRC)

NOTE: This report references 2021 Code sections with [2018] Code sections shown in brackets where they differ.

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

- Structural

1.3 RealPost, RealPost Laminated, 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, RealPost Laminated, 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, RealPost Laminated, and AbsolutePost:

RealPost and RealPost Laminated columns are manufactured from SPF and AbsolutePost from Western Red Cedar 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, respectively, of 3-1/2 × 3-1/2, 5-1/2 × 5-1/2, and 7-1/4 × 7-1/4 inches. The RealPost Laminated columns are offered in a nominal size of 4 × 4, with actual dimensions of 3-1/4 × 3-1/4 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: RealPost and AbsolutePost columns utilize test data for compression parallel to grain, while RealPost Laminated columns utilize tabulated reference design values for compression parallel to grain. Calculated allowable column loads in Tables 2 and 3 are based upon ANSI/AWC National Design Specification (NDS) for Wood Construction, Chapter 3.6 Compression Members.

5.0 INSTALLATION

5.1 General: RealPost, RealPost Laminated, 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, RealPost Laminated, 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 and are intended for axial loading only. 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 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 ANSI/AWC NDS. Increases due to load duration factor are only allowed for RealPost Laminated columns. 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, RealPost Laminated, 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, buildings constructed under the IRC; and for Type III-B construction under the IBC where combustibile building elements are allowed.

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

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM D5456.

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

7.2 Engineering analysis in accordance with the 2018 ANSI/AWC National Design Specification (NDS) for Wood Construction.

8.0 IDENTIFICATION

Columns are identified with the manufacturer's name (Woodtone), address and telephone number, the product name (RealPost, RealPost Laminated, 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.

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TABLE 1 - PROPERTIES EVALUATED

| PROPERTY | 2021 IBC SECTION ¹ | 2021 IRC SECTION ¹ |
|-------------------------------|-------------------------------|-------------------------------|
| Compression parallel to 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% | | | | | | |
|-------------|-----------------------------|-------|-------|---|-------|-------|--------------------------|
| | RealPost ⁴ (SPF) | | | AbsolutePost ⁴ (Western Red Cedar) | | | RealPost Laminated (SPF) |
| | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 |
| 4 | 18016 | 38079 | 52721 | 19509 | 42493 | 54627 | 6075 |
| 6 | 11228 | 34507 | 48277 | 11719 | 38168 | 49692 | 4080 |
| 8 | 6744 | 28955 | 41740 | 6980 | 31315 | 42164 | 2738 |
| 10 | 4409 | 21956 | 32766 | 4553 | 23249 | 32351 | 1931 |
| 12 | 3092 | 16249 | 24652 | 3190 | 17057 | 24071 | 1427 |
| 14 | 2284 | 12283 | 18760 | 2355 | 12849 | 18235 | n/a |
| 16 | n/a | 9550 | 14629 | n/a | 9972 | 14191 | n/a |
| 18 | n/a | 7615 | 11688 | n/a | 7945 | 11323 | n/a |
| 20 | n/a | 6206 | 9534 | n/a | 6471 | 9230 | n/a |
| 22 | n/a | 5150 | 7919 | n/a | 5369 | 7663 | n/a |
| 24 | n/a | 4341 | 6678 | n/a | 4524 | 6460 | n/a |

| Length (ft) | Moisture Content 15% | | | | | | |
|-------------|-----------------------------|-------|-------|---|-------|-------|--------------------------|
| | RealPost ⁴ (SPF) | | | AbsolutePost ⁴ (Western Red Cedar) | | | RealPost Laminated (SPF) |
| | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 |
| 4 | 16691 | 36209 | 50051 | 18247 | 40280 | 52143 | 6075 |
| 6 | 10976 | 33130 | 46183 | 11510 | 36581 | 47824 | 4080 |
| 8 | 6692 | 28591 | 40850 | 6935 | 30910 | 41583 | 2738 |
| 10 | 4392 | 22387 | 33133 | 4538 | 23609 | 32890 | 1931 |
| 12 | 3085 | 16823 | 25406 | 3184 | 17527 | 24841 | 1427 |
| 14 | 2280 | 12795 | 19487 | 2352 | 13267 | 18935 | n/a |
| 16 | n/a | 9976 | 15253 | n/a | 10320 | 14778 | n/a |
| 18 | n/a | 7968 | 12209 | n/a | 8233 | 11810 | n/a |
| 20 | n/a | 6500 | 9971 | n/a | 6710 | 9637 | n/a |
| 22 | n/a | 5398 | 8287 | n/a | 5570 | 8005 | n/a |
| 24 | n/a | 4552 | 6992 | n/a | 4695 | 6752 | n/a |





TABLE 2 - CONTINUED^{1, 2, 3}

| Length (ft) | Moisture Content 19% | | | | | | | | |
|-------------|-----------------------------|-------|-------|---|-------|-------|--------------------------|--|--|
| | RealPost ⁴ (SPF) | | | AbsolutePost ⁴ (Western Red Cedar) | | | RealPost Laminated (SPF) | | |
| | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 | | |
| 4 | 14912 | 31577 | 44442 | 16234 | 34745 | 48919 | 6075 | | |
| 6 | 10544 | 29177 | 41360 | 11089 | 31965 | 45362 | 4080 | | |
| 8 | 6603 | 25956 | 37451 | 6848 | 28054 | 40639 | 2738 | | |
| 10 | 4363 | 21253 | 31684 | 4509 | 22490 | 33723 | 1931 | | |
| 12 | 3072 | 16398 | 25074 | 3171 | 17116 | 26259 | 1427 | | |
| 14 | 2274 | 12614 | 19512 | 2346 | 13088 | 20283 | n/a | | |
| 16 | n/a | 9885 | 15374 | n/a | 10230 | 15926 | n/a | | |
| 18 | n/a | 7917 | 12348 | n/a | 8182 | 12768 | n/a | | |
| 20 | n/a | 6469 | 10106 | n/a | 6679 | 10439 | n/a | | |
| 22 | n/a | 5378 | 8410 | n/a | 5550 | 8682 | n/a | | |
| 24 | n/a | 4538 | 7102 | n/a | 4682 | 7328 | n/a | | |

¹ The cross-sectional areas for the RealPost and AbsolutePost columns are as follows: 4 x 4 = 11.79 in²; 6 x 6 = 23.00 in²; 8 x 8 = 23.94 in². The cross-sectional area for the 4 x 4 RealPost Laminated column is 10.68 in².

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 the NDS.

⁴ No increases are permitted for RealPost or AbsolutePost through the use of other load duration factors.

TABLE 3 – COLUMN ECCENTRIC AXIAL ALLOWABLE LOAD (LBS), NORMAL DURATION (100%)^{1, 2, 3}

| Length (ft) | Moisture Content 12% | | | | | | | | |
|-------------|-----------------------------|-------|-------|---|-------|-------|--------------------------|--|--|
| | RealPost ⁴ (SPF) | | | AbsolutePost ⁴ (Western Red Cedar) | | | RealPost Laminated (SPF) | | |
| | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 | | |
| 4 | 9062 | 18617 | 26272 | 9264 | 19314 | 25337 | 3693 | | |
| 6 | 6696 | 16458 | 24394 | 6804 | 17012 | 23507 | 2753 | | |
| 8 | 4767 | 13928 | 22218 | 4850 | 14332 | 21344 | 2018 | | |
| 10 | 3485 | 11364 | 19773 | 3553 | 11669 | 18921 | 1511 | | |
| 12 | 2637 | 9194 | 17182 | 2693 | 9448 | 16382 | 1164 | | |
| 14 | 2057 | 7504 | 14704 | 2103 | 7720 | 14017 | n/a | | |
| 16 | n/a | 6201 | 12564 | n/a | 6389 | 11985 | n/a | | |
| 18 | n/a | 5193 | 10788 | n/a | 5356 | 10301 | n/a | | |
| 20 | n/a | 4405 | 9321 | n/a | 4546 | 8907 | n/a | | |
| 22 | n/a | 3778 | 7794 | n/a | 3902 | 7499 | n/a | | |
| 24 | n/a | 3271 | 6622 | n/a | 3382 | 6375 | n/a | | |

TABLE 3 - CONTINUED^{1, 2, 3}





| Moisture Content 15% | | | | | | | |
|----------------------|-----------------------------|-------|-------|---|-------|-------|--------------------------|
| Length (ft) | RealPost ⁴ (SPF) | | | AbsolutePost ⁴ (Western Red Cedar) | | | RealPost Laminated (SPF) |
| | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 |
| 4 | 8814 | 18836 | 26462 | 9062 | 19469 | 25651 | 3693 |
| 6 | 6628 | 16782 | 24675 | 6753 | 17270 | 23875 | 2753 |
| 8 | 4749 | 14364 | 22621 | 4836 | 14691 | 21792 | 2018 |
| 10 | 3479 | 11831 | 20283 | 3547 | 12050 | 19464 | 1511 |
| 12 | 2634 | 9614 | 17769 | 2691 | 9786 | 16972 | 1164 |
| 14 | 2055 | 7860 | 15298 | 2101 | 8008 | 14586 | n/a |
| 16 | n/a | 6501 | 13120 | n/a | 6630 | 12500 | n/a |
| 18 | n/a | 5447 | 11283 | n/a | 5561 | 10757 | n/a |
| 20 | n/a | 4621 | 9757 | n/a | 4722 | 9307 | n/a |
| 22 | n/a | 3964 | 8179 | n/a | 4053 | 7850 | n/a |
| 24 | n/a | 3433 | 6949 | n/a | 3514 | 6673 | n/a |

| Moisture Content 19% | | | | | | | |
|----------------------|-----------------------------|-------|-------|---|-------|-------|--------------------------|
| Length (ft) | RealPost ⁴ (SPF) | | | AbsolutePost ⁴ (Western Red Cedar) | | | RealPost Laminated (SPF) |
| | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 | 6 x 6 | 8 x 8 | 4 x 4 |
| 4 | 8426 | 17771 | 25319 | 8684 | 18404 | 26281 | 3693 |
| 6 | 6504 | 16000 | 23723 | 6642 | 16506 | 24582 | 2753 |
| 8 | 4718 | 13906 | 21939 | 4807 | 14270 | 22651 | 2018 |
| 10 | 3467 | 11638 | 19894 | 3537 | 11877 | 20458 | 1511 |
| 12 | 2629 | 9534 | 17652 | 2685 | 9713 | 18068 | 1164 |
| 14 | 2052 | 7821 | 15359 | 2098 | 7971 | 15668 | n/a |
| 16 | n/a | 6480 | 13251 | n/a | 6610 | 13499 | n/a |
| 18 | n/a | 5434 | 11429 | n/a | 5549 | 11651 | n/a |
| 20 | n/a | 4613 | 9902 | n/a | 4713 | 10096 | n/a |
| 22 | n/a | 3958 | 8336 | n/a | 4047 | 8547 | n/a |
| 24 | n/a | 3429 | 7082 | n/a | 3509 | 7265 | n/a |

¹ The cross-sectional areas for the RealPost and AbsolutePost columns are as follows: 4 x 4 = 11.79 in²; 6 x 6 = 23.00 in²; 8 x 8 = 23.94 in². The cross-sectional area for the 4 x 4 RealPost Laminated column is 10.68 in².

² Horizontal loading is not permitted. End loads are limited to a max. eccentricity of 0.60 in. for 4 x 4 columns, 1.06 in. for 6 x 6 column, and 1.49 in. for 8 x 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 the NDS.

⁴ No increases are permitted for RealPost or AbsolutePost through the use of other load duration factors.

