APA PRODUCT REPORT®

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Qualified Wood Structural Panels With Low Formaldehyde Emissions

PR-E710

Revised December 15, 2023

Product: Wood Structural Panels Qualified for Low Formaldehyde Emissions

1. Basis of the product report:
   - APA Custom Product Specification E-710
   - ISO 12460-4, Wood-Based Panels -- Determination of Formaldehyde Release, Part 4: Desiccator Method, AS/NZS 2269.0:2012 Plywood – Structural Part 0: Specifications, and AS/NZS 2098.11:2005 (R2016) Methods of test for veneer and plywood, Method 11, Determination of formaldehyde emissions for plywood
   - JAS Notification 475 Structural Plywood
   - JAS 0360 Standard for Structural Panel
   - ANSI/APA PRP 210, Standard for Performance Rated Engineered Wood Siding
   - ANSI/APA PRR 410, Performance Standard for Engineered Wood Rim Boards
   - CAN/CSA O325, Construction Sheathing
   - DOC PS 1, Structural Plywood
   - DOC PS 2, Performance Standard for Wood Structural Panels
   - APA PRP-108, Performance Standards and Qualification Policy for Wood Structural Panels
   - APA PRR-401, Performance Standard for APA Rim Boards
   - APA Test Reports (see Table 2) and other qualification data

2. Product description:
   Wood structural panels are made with either veneers or strands of various species and classifications in accordance with the in-plant manufacturing standard approved by APA. Wood structural panels are available in a variety of thicknesses and sizes.

3. Formaldehyde emission level:
   The G5 rating is a formaldehyde emission level as defined in Table 1. Wood structural panels labeled as G5 have been qualified for low formaldehyde emissions based on ISO 12460-4 and the bond performance requirements of one of the following product standards: PS 2, PS 1, CAN/CSA O325, ANSI/APA PRP 210, APA PRR-401, ANSI/APA PRR 410, or APA PRP-108. Wood structural panels meeting the formaldehyde emission level specified in Table 1 in accordance with the APA Custom Product Specification E-710 are listed in Table 2.

   Table 1. Upper formaldehyde emission level for G5 rating based on ISO 12460-4 and AS/NZS 2098-11[(a)]

Average	0.20 mg/per liter
Individual specimen	0.30 mg/per liter

   [(a)] Testing has shown that APA-trademarked products that meet these G5 levels also met the level specified in the HUD regulation. Wood structural panels are outside the scope and are exempted from CARB ATCM, U.S. EPA's TSCA Title VI, CAN/CSA-O160, and Canada SOR/2021-148 for formaldehyde from composite wood products. The tabulated formaldehyde emission level in the G-5 standard is more stringent than the Super E_0 of AS/NZS 2269.0, and F☆☆☆☆ of JAS Notification 475 and JAS 0360.

4. Limitations:
   a) Wood structural panels shall be designed and installed in accordance with the applicable provisions of the code and the recommendations provided by the

manufacturers and APA Design/Construction Guide: *Engineered Wood Construction Guide*, Form E30 (www.apawood.org/resource-library).

b) Wood structural panels trademarked as Exposure 1 are limited to dry service conditions that result in the average moisture content of sawn lumber of less than 16%.

c) Wood structural panels are produced by the manufacturing facilities shown in Table 2 under a quality assurance program audited by APA in accordance with the APA Custom Product Specification E-710.

d) This report is subject to re-examination in one year.

5. Identification:
Wood structural panels are identified by a label bearing the manufacturer's name and/or trademark, the APA assigned plant number, the product standard and thickness, the bond classification, the APA logo, the product report number PR-E710, and the formaldehyde emission rating G5.

Table 2. Qualified Manufacturing Facilities for Low Formaldehyde Emission[(a)]

Manufacturer	Location	Mill Number	APA Test Report[(b)]
Hardel Mutual Plywood Corporation	Chehalis, WA	79	T2018P-31
PotlatchDeltic Corporation	St. Maries, ID	215	Q09Q-1
Roseburg Forest Products	Coquille, OR	367	T2016P-37
Roseburg Forest Products	Riddle, OR	482	T2016P-18
Tolko Industries Ltd.	High Prairie, AB, Canada	450	T2018P-17
Tolko Industries Ltd.	Meadow Lake, SK, Canada	492	Q08Q-6
Tolko Industries Ltd.	Slave Lake, AB, Canada	514	Q08Q-5

(a) This product report is applicable to uncoated wood structural panels.
(b) Reports for the required periodic confirmation tests are not listed.

APA – The Engineered Wood Association is an approved national standards developer accredited by American National Standards Institute (ANSI). APA publishes ANSI standards and Voluntary Product Standards for wood structural panels and engineered wood products. APA is an accredited certification body under ISO/IEC 17065 by Standards Council of Canada (SCC), an accredited inspection agency under ISO/IEC 17020 by International Code Council (ICC) International Accreditation Service (IAS), and an accredited testing organization under ISO/IEC 17025 by IAS. APA is also an approved Product Certification Agency, Testing Laboratory, Quality Assurance Entity, Validation Entity, and Product Evaluation Entity by the State of Florida, and an approved testing laboratory by City of Los Angeles.

APA – THE ENGINEERED WOOD ASSOCIATION

HEADQUARTERS

7011 So. 19th St. ▪ Tacoma, Washington 98466

Phone: (253) 565-6600 ▪ Fax: (253) 565-7265 ▪ Internet Address: www.apawood.org

PRODUCT SUPPORT HELP DESK

(253) 620-7400 ▪ *E-mail Address*: help@apawood.org

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