

## Qualified Wood I-Joists With Low Formaldehyde Emissions

PR-E730

Revised June 22, 2011

Product: Wood I-Joists Qualified for Low Formaldehyde Emissions

1. Basis of the product report:
  - APA Custom Product Specification E-730
  - Test method follows the principles of ISO 12460-4, Wood-Based Panels -- Determination of Formaldehyde Release, Part 4: Desiccator Method, and AS/NZS 4357.4:2005, Structural Laminated Veneer Lumber, Part 4: Determination of Formaldehyde Emissions
  - ASTM D 5055 Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists
  - APA Report T2010Q-09 and other qualification data
2. Product description:  
Wood I-joists are made with either solid sawn or LVL flanges and OSB webs of various species and classifications in accordance with the in-plant manufacturing standard approved by APA. Wood I-joists are available in a variety of depths and sizes.
3. Formaldehyde emission level:  
The G-5 rating is a formaldehyde emission level as defined in Table 1. Wood I-Joists have been qualified for low formaldehyde emissions following the principles of ISO 12460-4 and AS/NZS 4357.4:2005, and the performance requirements of ASTM D 5055. Wood I-joists meeting the formaldehyde emission level specified in Table 1 in accordance with the APA Custom Product Specification E-730 are listed in Table 2.

Table 1. Upper formaldehyde emission level for G-5 rating following the principles of ISO 12460-4 and AS/NZS 4357.4:2005<sup>(a)</sup>

Average	0.20 mg/l
Individual specimen	0.30 mg/l

<sup>(a)</sup> I-joists meeting ASTM D 5055 are exempt from the CARB rule, and are not within the scope of HUD regulations. The tabulated formaldehyde emission level in the G-5 standard is more stringent than the E<sub>0</sub> of AS/NZS 4357.4:2005 and F☆☆☆☆ of JAS Standard for Laminated Veneer Lumber, MAFF Notification 701.

4. Limitations:
  - a) Wood I-joists 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/publications](http://www.apawood.org/publications)).
  - b) Wood I-joists trademarked in North America are limited to dry service conditions that result in the average moisture content of sawn lumber of less than 16 percent.
  - c) Wood I-joists 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-730.
  - d) This report is subject to re-examination in one year.
5. Identification:  
Wood I-joists are identified by a label bearing the manufacturer's name and/or trademark, the APA assigned plant number, the I-joist series and depth, the APA logo, the product report number PR-E730, and the formaldehyde emission rating G-5.

Table 2. Qualified Manufacturing Facilities for Low Formaldehyde Emission

Manufacturer	Location	Mill Number	APA Test Report
Anthony Eacom, Inc.	Sault Ste. Marie, ON	1058	T2011Q-17
Pacific Woodtech Corporation	Burlington, WA	1048	T2010Q-09

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