

Warmboard<sup>®</sup> Radiant-Floor Heating Panels PR-V180  
Warmboard, Inc. Revised February 18, 2011

Product: Warmboard<sup>®</sup> Radiant Floor Heating Panels  
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[www.warmboard.com](http://www.warmboard.com)

1. Basis of the product report:
  - 2009 and 2006 International Building Code (IBC): Sections 104.11 Alternative Materials and 2303.1.4 Wood Structural Panels
  - 2009 and 2006 Residential Building Code (IRC): Sections R104.11 Alternative Materials and R503.2 Wood Structural Panel Sheathing
  - DOC PS 2-04 Performance Standard for Wood-Based Structural-Use Panels
  - CSA O325-07 Construction Sheathing
  - APA Reports T2002Q-37 and T2010Q-03, and other qualification data
2. Product description:

Warmboard radiant-floor heating panels (abbreviated as “Warmboard panels” hereinafter) are manufactured from APA-Rated Sturd-I-Floor plywood that has been qualified under both DOC PS 2 and CSA O325. These base panels have a nominal thickness of 1-3/32 inches (27.78 mm) or greater, measure 4 feet by 8 feet (1219 mm by 2438 mm), and have tongue-and-grooved edges. One face of each base panel has channel grooves routed into the surface to accommodate radiant-floor tubing. Grooves are targeted to be 0.690 inch (17.5 mm) deep and 0.680 inch (17.2 mm) wide and are spaced 12 inches (305 mm) apart starting at 6 inches (152 mm) from the panel edge (see Figure 1). Panels used in the field of the floor system contain straight grooves that are parallel to the strength axis of the panel. End panels contain curved grooves to provide a continuous loop through the floor system. As shown in Figure 1, the cross-panel grooves are part of a “turnaround loop” which provides continuous water flow in polyethylene tubes through the floor system. Panels have an overlay of 0.025 inch (0.64 mm) thick aluminum bonded to the grooved surface.
3. Design properties:

Warmboard panels are wood structural panels that meet the requirements of IBC Section 2303.1.4 and IRC Section R503.2. In addition, Warmboard panels have been tested and meet all structural and bond performance requirements of DOC PS-2 and CSA O325. The panel single-floor span rating is 24 inches (610mm) on center, and is applicable to panels at least 24 inches (610 mm) wide. The allowable uniform total and live loads at the maximum span are 110 psf (5.3 kN/m<sup>2</sup>) and 100 psf (4.2 kN/m<sup>2</sup>), respectively. The span rating and allowable loads are based on Warmboard panels installed with the strength axis perpendicular to supports.
4. Product installation:

Warmboard panels shall be installed in accordance with recommendations provided by the manufacturer ([www.warmboard.com/wp-content/uploads/2007/03/install\\_guide\\_102610.pdf](http://www.warmboard.com/wp-content/uploads/2007/03/install_guide_102610.pdf)). The maximum span shall be in accordance with the Span Rating shown in the trademark.
5. Fire-resistant construction:

Wood structural panels that are not fire-treated have been shown to meet a Class III (or C) category for flame spread. Warmboard panels have not been tested for fire resistant construction and the evaluation of Warmboard panels for fire-rated assemblies is outside the scope of this report.

6. Limitations:
- a) Warmboard panels shall be designed in accordance with the span rating and maximum loads specified in this report, and installed with the strength axis of the panel perpendicular to supports and with other recommendations provided by the manufacturer.
  - b) Warmboard panels are limited to dry service conditions where the average equilibrium moisture content of sawn lumber is less than 16 percent.
  - c) Warmboard panels are produced at METALfx, Willits, CA under a quality assurance program audited by APA.
  - d) This report is subject to re-examination in one year.
7. Identification:  
Warmboard panels described in this report are identified by a label bearing the manufacturer's name (Warmboard, Inc.) and/or trademark, the APA assigned plant number (487), the product thickness, the Span Rating, the Exposure Rating, the APA logo, the report number PR-V180, and a means of identifying the date of manufacture. A typical trademark for Warmboard panels is shown in Figure 2.

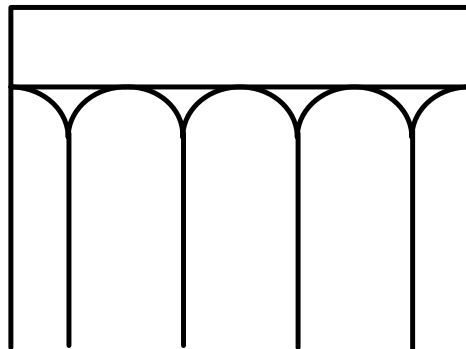


Figure 1. Grooving pattern for Warmboard panels with turnaround loop



Figure 2. Typical trademark for Warmboard panels

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**APA – THE ENGINEERED WOOD ASSOCIATION  
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