APA – The Engineered Wood Association

APA – The Engineered Wood Association represents North American manufacturers of plywood, OSB, glulam, I-joists, and structural composite lumber. Since its inception in 1933, APA has led the industry as an innovator in technical research and as the provider of the most rigorous product testing and quality auditing program in the field.

Currently representing 84 percent of structural wood panel producers in North America, APA is known for a well-demonstrated commitment to rigorous quality assurance, technical research and testing, national and international standards development, and a highly regarded safety and health program that fosters industry-wide excellence in safety.

APA is committed to the needs of its Canadian members, maintaining a close working relationship with the Canadian Standards Association (CSA) in the development and maintenance of Canada's national consensus standards for wood-based panels and other engineered wood products. APA staff actively participates in CSA A369, Technical Committee on Wood-Based Panels, CSA A370, Technical Committee on Solid and Engineered Wood Products, and CSA O86, Engineering Design in Wood, as well as ASTM, ANSI, CIB, and ISO.
The APA Mark of Quality

Much more than just a logo, the APA trademark is a guide to panel performance

The APA trademark is a manual in a mark. It tells the panel use, maximum support spacing (for OSB), thickness, exposure, manufacturer, and code or standard.

The APA mark signifies that product quality is subject to verification through APA audit—a rigorous program of testing and quality control that demonstrates the manufacturer's commitment to ongoing, independent product testing. The mark assures manufacture in conformance with the standard shown in the mark.
Plywood

Versatile, stable, and strong: the original engineered wood product

Plywood has been one of the most recognized and trusted wood building products for decades. Manufactured from thin sheets of cross-laminated veneer and bonded under heat and pressure with moisture-resistant adhesives, plywood panels have superior dimensional stability and an excellent strength-to-weight ratio and are highly resistant to static and impact loads, chemicals, and changes in environmental temperature and humidity.

Plywood manufactured by APA member mills is available in a wide variety of appearance grades, ranging from smooth, natural surfaces suitable for finish work to more economical grades used for sheathing. With more than a dozen common thicknesses and over twenty different grades, APA-trademarked plywood is well-suited to a multitude of demanding applications, including subflooring, single-layer flooring, wall and roof sheathing, marine applications, and concrete forming. Plywood is a solid choice for industrial applications like pallets, industrial containers, mezzanine decks, and furniture, too.

<table>
<thead>
<tr>
<th>PLYWOOD PANELS FOR ALL PURPOSES</th>
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<tbody>
<tr>
<td>▪ Sheathing &amp; Rough Surfaces</td>
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<tr>
<td>Workhorse panels for construction and industry</td>
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<tr>
<td>▪ Sanded, Solid, &amp; Repaired Faces</td>
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<tr>
<td>Uniform appearance, uniform thickness</td>
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<tr>
<td>▪ Enhanced Faces, Overlaid &amp; Coated</td>
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<td>Rugged panels for punishing conditions</td>
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<tr>
<td>▪ Concrete Forming</td>
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<tr>
<td>Reuse time after time</td>
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<tr>
<td>▪ Special Features</td>
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<tr>
<td>Unique lay-ups, custom surfaces, oversized</td>
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Plywood Specifications

Sizes and Thicknesses

APA EXTERIOR Plywood (DFP, CSP, and Aspen) is manufactured in a size of 1220 mm by 2440 mm, the metric equivalent of the familiar 4 ft by 8 ft panel. It is also available in a metric size of 1200 mm by 2400 mm. Net face widths for tongue-and-groove panels are given in Table 1. APA Plywood is manufactured in thicknesses ranging from 6 mm to 31.5 mm (See Table 1).

Species

Plywood marked APA EXTERIOR under CSA O121, CSA O151, CSA O153 may be designated Douglas-fir (DFP), Canadian Softwood (CSP), Poplar or Aspen plywood. Canadian Softwood (CSP) includes several species of spruce and pine. APA Exterior Douglas-fir plywood is manufactured with faces of Douglas-fir veneers. The inner plies and some backs may be of veneers of selected coniferous species. For a list of species, refer to the APA Canadian Plywood Grading Guide, Form Q701.

Plywood Grades and Products

APA member manufacturers produce a wide range of EXTERIOR plywood grades and products. They also produce Medium Density (MDO) and High Density (HDO) overlaid plywood, tongue-and-groove plywood, concrete form panels, and specialty panels.

TABLE 1

SIZES AND THICKNESSES OF APA EXTERIOR PLYWOOD

<table>
<thead>
<tr>
<th>Thicknesses</th>
<th>Sheathing &amp; Select Thicknesses</th>
<th>Sizes</th>
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<tr>
<td>6 mm</td>
<td>19 mm&lt;sup&gt;(c)&lt;/sup&gt;</td>
<td>7.5 mm</td>
</tr>
<tr>
<td>8 mm</td>
<td>21 mm&lt;sup&gt;(c)&lt;/sup&gt;</td>
<td>9.5 mm</td>
</tr>
<tr>
<td>11 mm</td>
<td>24 mm&lt;sup&gt;(c)&lt;/sup&gt;</td>
<td>12.5 mm&lt;sup&gt;(s)&lt;/sup&gt;</td>
</tr>
<tr>
<td>14 mm</td>
<td>27 mm&lt;sup&gt;(c)&lt;/sup&gt;</td>
<td>15.5 mm&lt;sup&gt;(s)&lt;/sup&gt;</td>
</tr>
<tr>
<td>17 mm&lt;sup&gt;(c)&lt;/sup&gt;</td>
<td>30 mm&lt;sup&gt;(c)&lt;/sup&gt;</td>
<td>18.5 mm&lt;sup&gt;(s)&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

NOTES:
(a) All thicknesses are metric, but some approximate imperial dimensions, e.g., 6 mm (1/4 in.)
(b) APA EXTERIOR plywood panels are available in additional sizes and thicknesses on special order.
(c) Available as square edge or with tongue-and-groove edge.

Lengths
Available up to 2500 mm

Widths
Available from 600 mm to 1250 mm

For tongue-and-groove panels, deduct 15mm from the nominal width for net face coverage.
Oriented Strand Board (OSB)

Sheathing panels with consistent properties and performance

Manufactured from moisture-resistant heat-cured adhesives and wood strands that are arranged in cross-oriented layers, OSB shares many of the strength and performance characteristics of plywood. OSB’s combination of wood and adhesives creates a strong, dimensionally stable panel that resists deflection, delamination, and warping; likewise, panels resist racking and shape distortion when subjected to demanding wind and seismic conditions.

APA-trademarked OSB is suitable for a variety of end uses including subflooring, single-layer flooring, wall and roof sheathing, ceiling/ deck sheathing, structural insulated panels, and more.

OSB Specifications

Sizes and Thicknesses
OSB is manufactured in large sheets. Commonly available panel sizes include 1220 mm by 2440 mm, the metric equivalent of the familiar 4 ft by 8 ft panel, as well as a metric size of 1200 mm by 2400 mm. Larger width and lengths are also available. Commonly available OSB thicknesses in mm (in.): 7.9 (5/16 in.), 8.7 mm (11/32 in.), 9.5 mm (3/8 in.), 11.0 mm (7/16 in.), 12.0 mm (15/32 in.), 12.7 mm (1/2 in.), 15.0 mm (19/32 in.), 15.9 mm (5/8 in.), 18.0 mm (23/32 in.), 19.1 mm (3/4 in.).

Performance Standards
APA Performance Rated Panels are designed to meet or exceed standards of performance for their intended end use. Two common grades of Performance Rated Panels are APA Rated Sheathing and APA Rated Sturd-I-Floor. In Canada, Performance Rated Panels are identified by CSA O325, Construction Sheathing, in the trademark.

Panel Marks and Span Ratings
A “Panel Mark” or “Span Rating” is a one- or two-number series that gives the maximum recommended center-to-center spacing (in inches) of supports when the long panel dimension or strength axis is perpendicular to supports (unless otherwise noted).

On APA Rated Sheathing, the panel mark appears in the trademark as two number series separated by a slash. The number on the left contains the letter “R” which represents “roof” followed by the maximum recommended spacing of supports when the panel is used for roof sheathing with the strength axis across three or more supports. The series to the right of the slash contains the letter “F” for “floor” followed by the maximum recommended spacing of supports when the panel is used for subflooring with the strength axis across three of more supports. A “W” represents recommended spacing of supports for wall applications and appears most often on Rated Siding panels.

Preceding the letter “F” or “R” in the end use mark on floor and roof panels is either the number 1 or 2. A number 1 indicates that the panel so marked may be used at its maximum rated span without requiring edge support or a layer of underlay. An end use mark starting with a 2 means that the panel will require edge support or a layer of underlay at its rated span.
APA: The Leading Resource for Information about Engineered Wood Products

From detailed product information to training material to personal technical assistance, APA offers an authoritative and comprehensive set of services, tools, and resources.

APA Product Support Help Desk

Our engineered wood specialists are available to answer questions about the specification and application of APA products. Ask a question online at www.apawood.org/help, or call (253) 620-7400 to speak to one of our specialists.

APA Publications

APA’s comprehensive selection of publications is curated to meet the needs of a large audience, including architects, engineers, specifiers, dealer/distributors, code officials, students, and industry insiders. New titles are added regularly to satisfy the needs and interests of our large audience. Many of APA’s technical publications serve as the definitive authority on their subject and are regularly revised to reflect the latest technical research. APA’s titles include basic construction tips for builders, product design and construction guides, wood market analysis and forecasts, case studies, technical topics and research reports, and much, much more. APA’s collection of publications is available at www.apawood.org/resource-library.

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WOOD UNIVERSITY

Online educational portal features free courses about engineered wood products and applications. Visit www.wooduniversity.org.
Understanding the APA Trademark

We have field representatives in many major U.S. cities and in Canada who can help answer questions involving APA trademarked products. For additional assistance in specifying engineered wood products, contact us:

APA HEADQUARTERS
7011 So. 19th St. • Tacoma, Washington 98466
(253) 565-6600 • Fax: (253) 565-7265

PRODUCT SUPPORT HELP DESK
(253) 620-7400 • help@apawood.org

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