

Oriented Strand Board (OSB) Grades

It has become increasingly common to grade panels in accordance with performance-based standards.

OSB conforming to the Canadian standard CSA O325 or the US APA Standard may be used for subfloors, roofs, and wall sheathing in accordance with end uses and spans shown on the panel mark.

These performance-based standards evaluate panels installed on framing for their ability to carry loads and to resist deflection under loads and conditions similar to or exceeding those experienced in construction or service.

The ability of a panel to meet performance requirements of a given end use is shown on the panel by a panel mark. This panel mark consists of:

- End use mark - 1F, 2F, 1R, 2R, and W
- Span mark - 16, 20, 24, 32, 40, 48.

In the end use mark, the “F”, “R” and “W” indicate, respectively, floor, roof and wall sheathing, while the “1” indicates the panel may be used alone to meet structural requirements. The “2” means that the panel must have an additional support element such as underlay for floors or H clips or blocking for roofs.

The two digit span mark indicates the maximum centre to centre spacing between supports in inches. For example, 16 indicates a maximum span of 16 inches.

Panels may qualify for more than one end use. For example, the panel mark 1 R24//2F16/W24 means that the panel may be used without edge support on a roof with trusses at 600 mm (24 in) on centre, on a floor with underlay on joists with centres at 400 mm (16 in), or on a wall with studs at 600 mm (24 in) on centre.

Canadian OSB panels conforming to CSA O325 are identified by a panel mark containing the following information: the manufacturer’s name or logo and mill number; the CSA reference standard CSA O325; the span rating and end use; the nominal thickness; the direction of face alignment; the date code; the certification agency logo; the words “Exterior Bond” or “Exterior Type Binder”.

Canadian OSB and waferboard conforming to CSA O437.0 is identified by a stamp containing the following information: the manufacturer’s name or logo and mill number; the CSA reference standard “CSA-O437.0”; the words “EXTERIOR BOND” or “EXT.BOND”; the appropriate grade mark, R-1, O-1, or O-2; the nominal thickness; on T & G panels, the words “THIS SIDE DOWN”; and on O-1 and O-2 panels, an arrow showing the direction of face orientation. Note that grade R-1 is waferboard, which is being phased out.