

Gradestamp Explanation for Structural Plywood Panels in Canada

Plywood is one of the primary structural panels utilized in building construction in Canada and has a long history of satisfactory performance. The National Building Code of Canada (NBCC)—in Part 9: Housing and Small Buildings, Section 9.23: Wood-Frame Construction—lists a variety of standards that apply to wood-based panels that are suitable for use as subflooring, roof sheathing, and wall sheathing. Three standards apply to exterior bond, all-veneer plywood that can meet the requirements for subfloor, and roof and wall sheathing:

- CSA O121, *Douglas fir plywood*
- CSA O151, *Canadian softwood plywood*
- CSA O153, *Poplar plywood*

One standard applies to certain types of plywood, but also OSB and waferboard:

- CAN/CSA O325, *Construction Sheathing*

Panels that are certified by an accredited certification body like TECO (see TECO's accreditation listing on the Standards Council of Canada website at www.scc.ca) to one of the listed standards must be marked to include such information as the manufacturer of the material, the standard to which it is produced, and that the material is of an exterior type (see NBCC Paragraph 9.3.2.4). There is other information included on gradestamps and that information is explained below. A variety of gradestamp examples are included at the end of this document for user benefit and reference.

- 1 Manufacturer information.** Additional information may also be stamped on the panel by the manufacturer. Such information might include: Manufacturer's name or logo, "SIZED FOR SPACING," "THIS SIDE DOWN," tongue and groove, minimum edge and/or end spacing, etc. to assist in installation.
- 2 Certification body.** TECO is an accredited certification body recognized and accepted in Canada by the Standards Council of Canada (SCC). TECO's certification mark, TECO TESTED with the roof logo, is registered with the Canadian Intellectual Property Office (CIPO). A lower case "c" is placed before the certification mark to identify product for Canada.
- 3 Mill number.** The mill number is assigned by TECO to identify the individual panel manufacturer. TECO mill numbers and corresponding manufacturer names are listed on the TECO website at www.tecotested.com/clients.
- 4 Product standard.** CSA O121, CSA O151, and CSA O153 apply to exterior bond, all-veneer plywood. CAN/CSA O325 applies to structural-use wood-based panels such as certain types of plywood but also oriented strand board (OSB) and waferboard. The year the standard is approved is included after the standard designation (e.g., CSA O121-08).

- 5 **Bond classification.** An Exterior classification is a bond that is unaffected by exposure to extreme conditions of moisture and temperature. An Exposure 1 classification means that the panels are suitable for uses not permanently exposed to the weather.
- 6 **Grade.** The quality of veneer used in the face, back and inner plies determines the grade of the panel. CSA O121 specifies requirements for Sheathing, Select, Select Tight Face, Good-one-side, Good-two-side, Overlaid and Custom grades. CSA O151 specifies requirements for Sheathing, Select, Select Tight Face, Overlaid and Custom grades. CSA O153 includes grades ranging from A-A to Industrial to Sheathing. *These designations do not apply to panels marked with CSA O325.*
- 7 **Span rating.** The span rating identifies the recommended maximum center-to-center support spacing under normal use conditions. The end use marks specify the panel application as: 1F (single floor), 2F (subfloor requiring separate underlayment), 1R (roof sheathing), 2R (roof sheathing requiring edge support) or W (wall sheathing). Span marks specify the recommended framing member spacing (e.g., 16, 24, 32, etc.) and are only applicable to panels marked with CSA O325.
- 8 **Commercial species or species designation.** The commercial species marking uses an abbreviation for the common commercial species used in the face and back plies of the panel. For CSA O121 the grouping of “DFP” is used and for CSA O151 “CSP” is used. For CSA O153 “Poplar,” “POP” or “PP” may be used. *These designations do not apply to panels marked with CSA O325.*
- 9 **Nominal thickness.** The thickness in nearest 0.5 millimeters. Table E.1 in CSA O121 and O151, Table 3 in CSA O153, and Table 8C in CSA O325 show typical panel thicknesses.
- 10 **Aligned face furnish.** The strength axis is parallel to the flake orientation of the panel face and back surfaces, which is generally aligned with the long panel dimension. This applies only to panels marked with CSA O325.





