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Douglas fir plywood

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Preface

This is the eighth edition of CSA O121, *Douglas fir plywood*. It supersedes the previous editions published in 2008, 1978, 1973, 1961, 1957, 1954, and 1953.

This Standard specifies an in-plant production and quality control system that includes auditing by a recognized certification body if applicable. It also provides a mechanism for the specification, quality control, and certification of custom grades and allows the use of alternative overlay systems.

Changes to this edition include the following:

- a) updated some publication references; and
- b) clarified the basis for ply thicknesses specified in Table 2.

This Standard was prepared by the Technical Committee on Wood Based Panels, under the jurisdiction of the Strategic Steering Committee on Forest Products, and has been formally approved by the Technical Committee.

Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This Standard was developed by consensus, which is defined by CSA policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
- 4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include “Request for interpretation” in the subject line:*
 - a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
 - b) *provide an explanation of circumstances surrounding the actual field condition; and*
 - c) *where possible, phrase the request in such a way that a specific “yes” or “no” answer will address the issue.*

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at standardsactivities.csa.ca.

- 5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include “Proposal for change” in the subject line:*
 - a) *Standard designation (number);*
 - b) *relevant clause, table, and/or figure number;*
 - c) *wording of the proposed change; and*
 - d) *rationalization for the change.*

0121-17

Douglas fir plywood

1 Scope

1.1

This Standard applies to exterior bond, all-veneer plywood with a minimum of three plies and parallel grain direction of the face and back plies.

1.2

This Standard specifies requirements for

- a) a quality system;
- b) ply species;
- c) materials;
- d) panel construction;
- e) bonding;
- f) veneer and panel grades;
- g) dimensions and tolerances;
- h) marking; and
- i) testing.

1.3

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

For innovations — Forintek Division

SP-18R (1986)

Evaluation procedures for synthetic patching materials for repairs to plywood panels

ISO/IEC (International Organization for Standardization/International Electrotechnical Commission)

17065:2012

*Conformity assessment – Requirements for bodies certifying products, processes and services***NIST (National Institute of Standards and Technology)**

PS 1-09

Structural Plywood

3 Definitions

The following definitions apply in this Standard:

Back — the lower-quality side of a panel in a grade of plywood whose outer plies are of different veneer grades.

Bark pocket — an opening between growth rings that contains bark.

Blister/delamination — an area of separation between plies due to lack of bond.

Bond — the union of material by adhesives.

Borer hole — a void made by wood-boring insects or worms.

Cap sheet — the outermost overlay sheet.

Characteristic — a feature, irregularity, or opening in a sheet of veneer or a panel permitted by this Standard.

Cleaned and sized (in connection with a panel face and/or back) — subject to a light hit and/or miss sanding operation that uses a coarse-grit abrasive.

Cushion sheet — an overlay sheet beneath the cap sheet.

Defect — a feature, irregularity, or opening in a sheet of veneer or a panel that, because it can adversely affect the appearance or strength of the wood, is not permitted by this Standard.

Discoloration — a stain in the wood.

Edge joint — a joint that runs parallel to the grain direction of the veneers being joined.

Edge void — an opening in an inner ply along a panel edge.

End joint — a joint that runs perpendicular to the grain direction of the veneers being joined.

Exterior bond — a bond that is unaffected by exposure to extreme conditions of moisture and temperature.

Face — either

- a) the better-quality side of a panel in a grade of plywood whose outer plies are of different veneer grades; or
- b) any side of a panel where grading rules draw no distinction between the two sides.

Filler — a type of composition generally consisting of

- a) resinous polymeric plastic dissolved in a solvent; and