

SPECIFYING GLUE LAMINATED TIMBER

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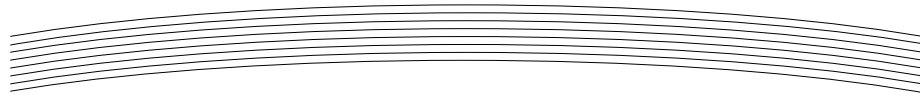
Product Introduction

Glue Laminated Timbers are produced by gluing smaller pieces of lumber to produce a single larger structural beam or timber. These structural members are then used as vertical columns, horizontal beams, and curved or arched timber beams. The information in this guide will identify the requirements for Glue Laminated Timbers as specified in the CSA O80 Standard. The processing and treatment of Glue Laminated Timbers shall be done in accordance with CSA O80.2-08, section 9.6.

Allowable Wood Species, Preservatives and Related Use Categories

The high strength and stiffness of Glue Laminated Timbers allows them to span large distances without intermediate supports. The addition of preservatives before or after gluing allows the interior and exterior use of Glue Laminated Timbers in a variety of exposure conditions. In above ground interior conditions Glue Laminated Timbers have a Use Category rating of 1 and 2. In structural above ground applications a Use Category rating of 3.2 and in critical and/or high decay conditions the Use Category ratings of 4.1 or 4.2. Glue Laminated Timbers are physically manufactured in accordance with CSA O112.6, CSA O112.7 and CAN/CSA-O122.

| Glue Laminated Timber – Preservative Usage by Species | | | | | | | | |
|--|------------------|-------|-------|------|------|-----|-------|-------|
| Laminations Treated before Gluing | | | | | | | | |
| UC1 - Above Ground – Interior, Insect only | | | | | | | | |
| UC2 - Above Ground – Interior, Damp | | | | | | | | |
| UC3.2 - Above Ground Structural (painted or unpainted) | | | | | | | | |
| UC4.1 - General or Highway Structural (non-critical) | | | | | | | | |
| Species Group | Preservative Use | | | | | | | |
| | CR | PCP-A | PCP-C | ACZA | CA-B | CCA | ACQ-C | ACQ-D |
| Lodgepole and Red Pine | No | No | No | No | Yes | No | Yes | Yes |
| Western Hemlock | No | No | No | Yes | Yes | Yes | Yes | Yes |
| Coastal Douglas Fir | No | No | No | Yes | Yes | Yes | Yes | Yes |
| Western Larch | No | No | No | No | Yes | No | Yes | Yes |
| Pacific Silver (amabilis) Fir | No | No | No | No | Yes | No | Yes | Yes |



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| Laminations Treated after Gluing | | | | | | | | |
|--|------------------|-------|-------|------|------|-----|-------|-------|
| UC1 - Above Ground – Interior, Insect only | | | | | | | | |
| UC2 - Above Ground – Interior, Damp | | | | | | | | |
| UC3.2 - Above Ground Structural (painted or unpainted) | | | | | | | | |
| UC4.1 - General or Highway Structural (non-critical) | | | | | | | | |
| Species Group | Preservative Use | | | | | | | |
| | CR | PCP-A | PCP-C | ACZA | CA-B | CCA | ACQ-C | ACQ-D |
| Lodgepole and Red Pine | No | No | No | No | No | No | No | No |
| Western Hemlock | Yes | Yes | Yes | No | No | No | No | No |
| Coastal Douglas Fir | Yes | Yes | Yes | No | No | No | No | No |
| Western Larch | No | No | No | No | No | No | No | No |
| Pacific Silver (amabilis) Fir | No | No | No | No | No | No | No | No |

Allowable Treatment Preservatives

All allowable species may be treated with one of the following preservatives. Wood preservatives require registration under the Federal Pest Control Act. Only preservatives that are currently registered are listed.

| Preservative | Preservative Abbreviation | Treated before Gluing | Treated after Gluing | Relevant Standards |
|----------------------------------|---------------------------|-----------------------|----------------------|-------------------------|
| Creosote | CR | | √ | AWPA P1 and P13 |
| Pentachlorophenol, Solvent A | PCP-A | | √ | CSA O80.4, AWPA P8 & P9 |
| Pentachlorophenol, Solvent C | PCP-C | | √ | CSA O80.4, AWPA P8 & P9 |
| Ammoniacal Copper Zinc Arsenate† | ACZA | √ | | AWPA P5 |
| Alkaline Copper Quat, Type C | ACQ-C | √ | | AWPA P5 |
| Alkaline Copper Quat, Type D | ACQ-D | √ | | AWPA P5 |
| Copper Azole | CA-B | √ | | AWPA P5 |
| Chromate Copper Arsenate, Type C | CCA | √ | | AWPA P5 |