

SPECIFYING LUMBER AND TIMBER IN BUILDING CONSTRUCTION

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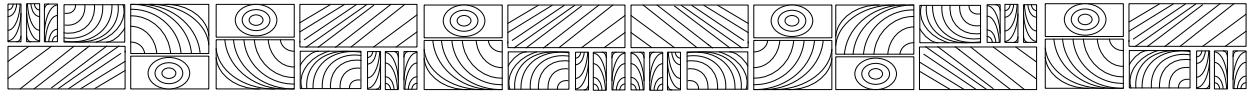
Product Introduction

Wood has many remarkable attributes and has been used as a building material for centuries. It is the only major building material that is both renewable and sustainable. Wood is easily workable, cost effective and when properly treated very durable in exposed applications. Lumber and Timber in Building Construction shall conform to the physical requirements of the National Lumber Grades Authority, Standard Grading Rules for Canadian Lumber. The information in this guide will identify the requirements for Treated Wood in Building Construction as specified in the CSA O80 Standard.

Allowable Wood Species and Related Use Categories

Lumber and Timber in Building Construction can be subjected to a wide variety of decay threats and therefore has a wide range of Use Category ratings from UC1 for framing lumber to a UC4.2 rating for exterior solid timber beams and supports. Lumber and Panelling in Building Construction can also be protected from fire with a Use Category rating of UCF.1. The Processing and Treatment of Sawn Lumber and Timber in a Building Construction shall be done in accordance with CSA O80.2-08, section 9.1.

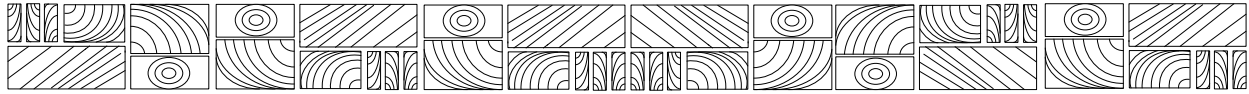
Lumber and Timber in Building Construction - Preservative usage by Species				
UC1– Interior Construction, Above Ground-dry				
Species Group	Preservative Use			
	ACQ-C	ACQ-D	CA-B	SBX
Jack and Lodgepole Pine	Yes	Yes	Yes	Yes
Eastern White, Ponderosa, and Red Pine	Yes	Yes	Yes	Yes
Southern Pine	Yes	Yes	Yes	Yes
Western White Pine	Yes	Yes	Yes	Yes
Hem-Fire North, Eastern and Western Hemlock, and True Firs	Yes	Yes	Yes	Yes
Spruce-Pine-Fir and Spruce-Pine-Fir West	Yes	Yes	Yes	Yes
Engelmann and Western White Spruce	Yes	Yes	Yes	Yes
Coastal Douglas Fir	Yes	Yes	Yes	Yes
Western Larch	No	No	No	No
Western Red Cedar	No	No	No	No
Yellow Cypress	No	No	No	No
Beech	No	No	No	No
Maple	No	No	No	No
Red Oak	No	No	No	No
White Oak	No	No	No	No



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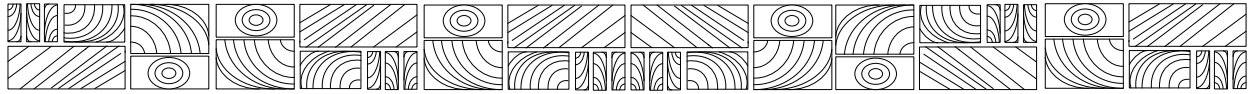
Lumber and Timber in Building Construction - Preservative usage by Species								
UC2– Interior Construction, Above Ground-damp								
Species Group	Preservative Use							
	ACQ-C	ACQ-D	CA-B	SBX				
Jack and Lodgepole Pine	Yes	Yes	Yes	Yes				
Eastern White, Ponderosa, and Red Pine	Yes	Yes	Yes	Yes				
Southern Pine	Yes	Yes	Yes	Yes				
Western White Pine	Yes	Yes	Yes	Yes				
Hem-Fire North, Eastern and Western Hemlock, and True Firs	Yes	Yes	Yes	Yes				
Spruce-Pine-Fir and Spruce-Pine-Fir West	Yes	Yes	Yes	Yes				
Engelmann and Western White Spruce	Yes	Yes	Yes	Yes				
Coastal Douglas Fir	Yes	Yes	Yes	Yes				
Western Larch	No	No	No	No				
Western Red Cedar	No	No	No	No				
Yellow Cypress	No	No	No	No				
Beech	No	No	No	No				
Maple	No	No	No	No				
Red Oak	No	No	No	No				
White Oak	No	No	No	No				
Lumber and Timber in Building Construction - Preservative usage by Species								
UC3.1 and 3.2 – Exterior Construction, Above Ground - coated or uncoated								
Species Group	Preservative Use							
	ACQ-C/D	CA-B	ACZA	CCA	CR	CR-S	CuN	PCP-A/C
Jack and Lodgepole Pine	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Eastern White, Ponderosa, and Red Pine	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Southern Pine	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Western White Pine	Yes	Yes	No	No	Yes	Yes	No	Yes
Hem-Fire North, Eastern and Western Hemlock, and True Firs	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Spruce-Pine-Fir and Spruce-Pine-Fir West	Yes	Yes	No	No	Yes	Yes	No	Yes
Engelmann and Western White Spruce	Yes	Yes	No	No	Yes	Yes	No	Yes



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Lumber and Timber in Building Construction - Preservative usage by Species								
UC3.1 and 3.2 – Exterior Construction, Above Ground - coated or uncoated								
Species Group	Preservative Use							
	ACQ-C/D	CA-B	ACZA	CCA	CR	CR-S	CuN	PCP-A/C
Coastal Douglas Fir	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Western Larch	No	No	Yes	Yes	No	No	No	No
Western Red Cedar	No	No	No	No	No	No	No	No
Yellow Cypress	No	No	No	No	Yes	Yes	No	Yes
Beech	No	No	Yes	Yes	No	No	No	Yes
Maple	No	No	Yes	Yes	Yes	Yes	No	Yes
Red Oak	No	No	Yes	Yes	Yes	Yes	No	Yes
White Oak	No	No	Yes	Yes	Yes	Yes	No	Yes
Lumber and Timber in Building Construction - Preservative usage by Species								
UC4.1 – Ground Contact or Freshwater, Normal Exposure – uncritical components								
Species Group	Preservative Use							
	ACQ-C/D	CA-B	ACZA	CCA	CR	CR-S	CuN	PCP-A/C
Jack and Lodgepole Pine	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Eastern White, Ponderosa, and Red Pine	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Southern Pine	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Western White Pine	Yes	Yes	No	No	Yes	Yes	No	Yes
Hem-Fire North, Eastern and Western Hemlock, and True Firs	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Spruce-Pine-Fir and Spruce-Pine-Fir West	Yes	Yes †	No	No	Yes	Yes	No	Yes
Engelmann and Western White Spruce	Yes	Yes	No	No	Yes	Yes	No	Yes
Coastal Douglas Fir	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Western Larch	No	No	Yes	Yes	No	No	No	No
Western Red Cedar	No	No	No	No	No	No	No	No
Yellow Cypress	No	No	No	No	Yes	Yes	No	Yes
Beech	Yes	Yes	Yes	Yes	No	No	No	Yes
Maple	No	No	Yes	Yes	Yes	Yes	No	Yes
Red Oak	No	No	Yes	Yes	Yes	Yes	No	Yes
White Oak	No	No	Yes	Yes	Yes	Yes	No	Yes
† Retentions specified in the CSA O80.1-08 Standard apply to Spruce-Pine-Fir West only								



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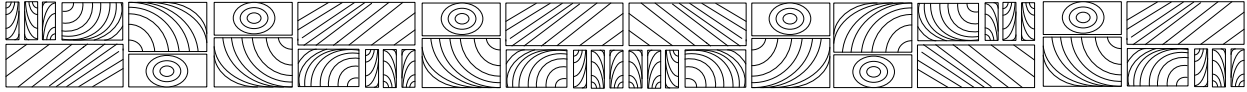
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Lumber and Timber in Building Construction - Preservative usage by Species					
UC4.2 – Ground Contact or Freshwater, High Decay Potential – critical components					
Species Group	Preservative Use				
	ACZA	CCA	CR	CR-S	PCP-A/C
Jack and Lodgepole Pine	Yes	Yes	Yes	Yes	Yes
Eastern White, Ponderosa, and Red Pine	Yes	Yes	Yes	Yes	Yes
Southern Pine	Yes	Yes	No	Yes	Yes
Western White Pine	Yes	Yes	No	Yes	Yes
Hem-Fire North, Eastern and Western Hemlock, and True Firs	Yes	Yes	Yes	Yes	Yes
Spruce-Pine-Fir and Spruce-Pine-Fir West	No	No	No	No	No
Engelmann and Western White Spruce	No	No	No	No	No
Coastal Douglas Fir	Yes	Yes	Yes	Yes	Yes
Western Larch	No	No	Yes	No	No
Western Red Cedar	No	No	No	No	No
Yellow Cypress	No	No	Yes	Yes	Yes
Beech	No	No	Yes	Yes	Yes
Maple	No	No	Yes	Yes	Yes
Red Oak	No	No	Yes	Yes	Yes
White Oak	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	Relevant Standards
Copper Naphthenate	CuN	CSA O80.4, AWPA P8 & P9
Creosote	CR	AWPA P1 and P13
Creosote-Petroleum Solution	CR-PS	AWPA P3
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



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Preservative	Preservative Abbreviation	Relevant Standards
Alkaline Copper Quat, Type D	ACQ-D	AWPA P5
Copper Azole	CA-B	AWPA P5
Chromate Copper Arsenate, Type C	CCA	AWPA P5