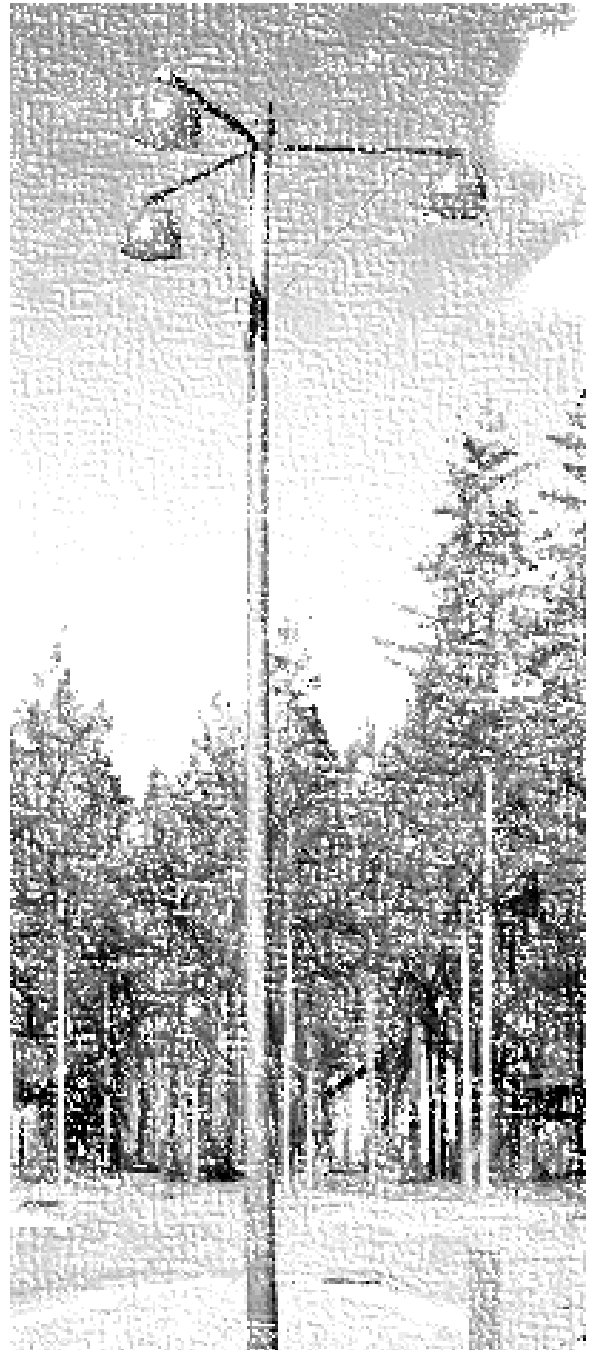


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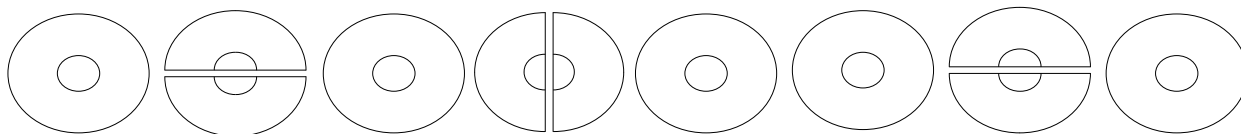
SPECIFIER GUIDE

No. WPC – 09-2023

Building Poles



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SPECIFYING POLES – Agricultural – Highway - Lighting

WPC – 09-2023

Product Introduction

Pressure treated poles can be used in wide variety of applications such as highway construction, agricultural buildings, and other general building applications, including highway lighting. These products are strong, cost effective, attractive, easy to install, low maintenance and durable and are the preferred choice for these applications.

Poles

Poles are defined as having a length greater than 4.75 m (>15 ft) and are pressure treated for highway lighting, farm, agriculture and building use, including buildings for road salt or fertilizer storage.

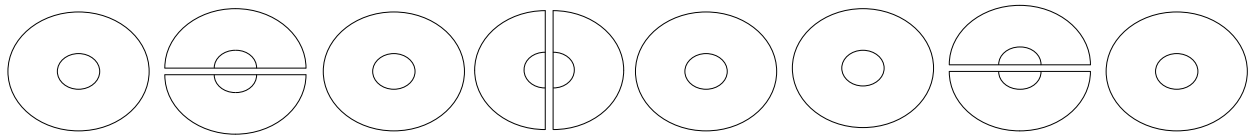
The information in this guide focuses on the requirements for pressure treatment of poles as specified in the CAN / CSA – O80 Series – 21 Wood Preservation®. For information on wood utility poles, refer to WPC – 05 – Specifying Wood Utility Poles.

Pole End Uses and Related Use Categories

Use Categories – Examples of Pole Uses and Exposures		
Poles – Round	Exposure(s)	Use Category
Agricultural	Ground Contact or freshwater – low decay	UC4.1
Agricultural	Ground Contact or freshwater – high decay	UC4.2
Highway construction	Ground Contact or freshwater – high decay	UC4.2
Building structural	Ground Contact or freshwater – high decay	UC4.2
Lighting – including highway	Ground Contact or freshwater – high decay	UC4.2

Preservative Systems Used in Treatment Poles – General		
Chemical Name	Abbreviation	Allowable Use Categories
Alkaline Copper Quat Type C	ACQ – C	UC4.1, UC4.2
Alkaline Copper Quat Type D	ACQ - D	UC4.1, UC4.2
Ammoniacal Copper Zinc Arsenate	ACZA	UC4.1, UC4.2
Copper Azole Type B	CA-B	UC4.1, UC4.2
Chromated Copper Arsenate	CCA	UC4.1, UC4.2
Creosote	CR	UC4.1, UC4.2
Copper Naphthenate	CuN	UC4.1, UC4.2
Pentachlorophenol	PCP	UC4.1, UC4.2





SPECIFYING POLES – Agricultural – Highway - Lighting

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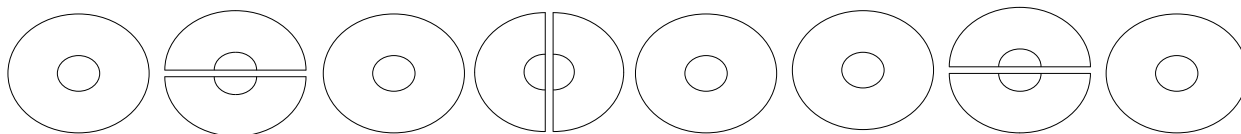
Preservative Treatments – Structural Poles – UC4.1								
UC4.1 – Ground Contact or Freshwater – Low Decay								
Species Group	Preservative System Retention – kg/m ³ *							
	ACQ-C	ACQ-D	ACZA	CA-B	CCA	CR	CuN	PCP
Eastern white pine	NR	NR	9.6	NR	9.6	145	1.5	7.2
Jack pine	NR	NR	9.6	NR	9.6	145	1.5	7.2
Lodgepole pine	NR	NR	9.6	NR	9.6	192	1.5	9.6
Ponderosa pine	9.6	9.6	9.6	5.0	9.6	120	1.3	4.8
Red pine	9.6	9.6	9.6	5.0	9.6	160	1.2	6.4
Southern pine	9.6	9.6	9.6	5.0	9.6	120	1.3	4.8
Western Hemlock	NR	NR	9.6	NR	9.6	145	NR	7.2
Coastal Douglas fir	NR	NR	9.6	NR	9.6	145	1.5	7.2
Interior Douglas fir	NR	NR	9.6	NR	9.6	240	NR	12.2
Western larch	NR	NR	9.6	NR	9.6	240	NR	12.2
Western red cedar	NR	NR	9.6†	5.0	9.6†	256	1.9	12.8
Yellow cypress	NR	NR	9.6	NR	9.6	256	1.9	12.8

† If the pole is incised in the groundline zone, the retention shall be 16 kg/m³ in the groundline zone and 4.8 kg/m³ in the midpoint area* *Refer to CAN/CSA O80.1-21 Table 16 for complete details
Source - CAN/CSA-O80 Series-21 Wood preservation. © 2021 Canadian Standards Association

Preservative Treatments – Structural Poles – UC4.2								
UC4.2 – Ground Contact or Freshwater, High Decay								
Species Group	Preservative System Retention – kg/m ³ *							
	ACQ-C	ACQ-D	ACZA	CA-B	CCA	CR	CuN	PCP
Eastern white pine	NR	NR	9.6	NR	9.6	192	1.9	9.6
Jack pine	NR	NR	9.6	NR	9.6	192	1.9	9.6
Lodgepole pine	NR	NR	9.6	NR	9.6	260	1.9	12.8
Ponderosa pine	9.6	9.6	9.6	5.0	9.6	145	2.1	6.1
Red pine	9.6	9.6	9.6	5.0	9.6	192	1.5	8.0
Southern pine	9.6	9.6	9.6	5.0	9.6	145	2.1	6.1
Western Hemlock	NR	NR	9.6	NR	9.6	192	NR	9.6
Coastal Douglas fir	NR	NR	9.6	NR	9.6	192	2.4	9.6
Interior Douglas fir	NR	NR	9.6	NR	9.6	240	NR	12.2
Western larch	NR	NR	9.6	NR	9.6	240	NR	12.2
Western red cedar	NR	NR	9.6†	5.0	9.6†	256	1.9	12.8
Yellow cypress	NR	NR	9.6	NR	9.6	256	1.9	12.8

† If the pole is incised in the groundline zone, the retention shall be 16 kg/m³ in the groundline zone and 4.8 kg/m³ in the midpoint area* *Refer to CAN / CSA O80.1-21 Table 16 for complete details
Source - CAN/CSA-O80 Series-21 Wood preservation. © 2021 Canadian Standards Association





SPECIFYING POLES – Agricultural – Highway - Lighting

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Product registration

Wood preservatives and their uses are regulated by Health Canada's Pest Management Regulatory Agency (PMRA).

Recommended Reference Standards

CAN / CSA – O15 – 21 Wood Utility Poles and Reinforcing Stubs®

CAN / CSA – O80 Series – 21 Wood Preservation®

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