

SPECIFICATION GUIDE TO TREATED WOOD END USES

	AWPA STANDARDS		OILBORNE PRESERVATIVES		
	UCS	C	COPPER NAP ¹	CREO ²	PENTA ³
AGRICULTURE, FARM USE					
Round poles and posts as structural members	4B	C5, C16	.075	7.5 – 16.0	.38 – .60
Sawn poles and posts as structural members	4B	C2, C16	.075	12.0	.60
Posts, fence					
• Round, half and quarter round	4A	C5, C16	.055	8.0	.40
• Sawn four sides	4A	C2, C16	.060	10.0	.50
Lumber, in soil contact	4A	C2, C16	.060	10.0	.50
Lumber, not in soil contact	3B	C2, C16	.040	8.0	.40
Lumber, food harvesting and storage	3B	C16, C29	NR	NR	NR
Plywood, in soil contact	4A	C9, C16	.060	10.0	.50
Plywood, not in soil contact	3B	C9, C16	.040	8.0	.40
Grape stakes, sawn	4A	C2, C16	.060	10.0	.30
BEAMS & TIMBERS, glue laminated before treatment					
Dry environment, above ground	1, 2	C28	.040	8.0	.30
Damp environment, above ground	3B	C28	.040	8.0	.30
Ground contact	4A	C28	.060	10.0	.60
Highway construction	4B, 4C	C14	.075	12.0	.60
BUILDING CONSTRUCTION MATERIAL					
Floor plate	2, 3B	C2, C15, C31	NL	NR	NR
Flooring, residential					
• Damp environment	3B	C2	NL	NR	NR
• Dry environment	1, 2	C2, C31	NL	NR	NR
Framing, interior	1, 2	C2, C15, C31	NL	NR	NR
Joists					
• Interior, above ground	1, 2	C2, C15, C31	NL	NR	NR
• Exterior, above ground	3B	C2, C15	NL	NR	NR
• Soil contact	4A	C2, C15	NL	NR	NR
Lumber					
• Above ground	3B	C2	.04	8.0	.40
• Ground contact and fresh water use	4A	C2	.06	10.0	.50
• Out of contact with ground and continuously protected from liquid water	2	C31	NL	NL	NL
Permanent Wood Foundation					
• Lumber	4B	C22	NL	NL	NL
• Plywood	4B	C22	NL	NL	NL
Plywood					
• Sub-floor, damp above ground	2	C9	NL	8.0	.40
• Exterior, above ground	3B	C9	NL	8.0	.40
• Ground contact and fresh water use	4A	C9	NL	8.0	.40
• Out of contact with ground and continuously protected from liquid water	2	C31	NL	NL	NL
Poles, building					
• Round	4A, 4B	C4, C16	NL	7.5 – 16.0	.38 – .60
• Sawn	4A, 4B	C2, C16	.075	12.0	.60
Studs	3B	C2, C15	NL	NR	NR
DECKING					
Highway Bridge	4B	C2, C14	.075	12.0	.60
Above ground	3B	C2, C15	.040	8.0	.40
Ground contact	4B	C2, C15	.060	10.0	.50
FENCES					
Pickets, slats, trim	3A, 3B	C2, C15	.055	8.0	.50
Posts, sawn	4A	C2, C15	NL	10.0	.50
Posts, round	4A	C5	.055	8.0	.40
HIGHWAY MATERIAL					
Lumber and timbers for bridges, structural members, decking, cribbing, and culverts	4B	C2, C14	.075	12.0	.60
• Structural lumber and timbers:					
– In salt water use and subject to marine borer attack	5A, 5B, 5C	C3, C14	NL	25.0	.60
– Piles, foundation, land and fresh water use	4C	C3, C14	NL	12 – 17	.60 – .85
– Piling in salt water use and subject to marine borer attack	5A, 5B, 5C	C3, C14	NL	16 – 20	NR
– Posts: Round, half-round, quarter round	4A	C5, C14	.055	8.0	.40
– Posts: Sawn	4A	C2, C14	.060	10.0	NL
– Handrails and guardrails	3B	C2, C14	.040	8.0	.40
Posts, guardrail					
• Round	4A	C2, C14	.069	10.0	.50
• Sawn	4A	C2, C14	.075	12.0	.60
LUMBER					
Above ground	3B	C2	.04	8.0	.40
Ground contact and fresh water use	4A	C2	.06	10.0	.50
Out of contact with ground and continuously protected from liquid water	2	C31	NL	NL	NL
MARINE LUMBER & TIMBERS					
Fresh water	4A	C2	.06	10.0	.50
In brackish or saltwater use and subject to marine borer attack	5A, 5B, 5C	C2, C18	NL	25.0	NR
PILES					
Foundation (round)	4C	C3	NL	12 – 17	.60 – .85
Land and fresh water use (round)	4C	C3	.14	12 – 17	.60 – .85
Marine (round) in salt or brackish and subject to marine borer attack	5A, 5B, 5C	C3, C18	NL	16 – 20	NR
Marine, dual treatment (round)	5A, 5B, 5C	C3, C18	NL	20	NR
Sawn timber piles	4B	C24	NL	9 – 12	.45 – .60
PLYWOOD					
Sub-floor, damp above ground	2	C9	NL	8.0	.40
Exterior, above ground	3B	C9	NL	8.0	.40
Ground contact and fresh water use	4A	C9	NL	8.0	.40
Out of contact with ground and continuously protected from liquid water	2	C31	NL	NL	NL

FOOTNOTES

(1) Copper Naphthenate.

(2) Creosote-coal tar creosote.

(3) Pentachlorophenol may be dissolved with several solvents. The solvents specified in AWWA P-9 are: Type A-Oil; Type C-Light Hydrocarbon solvent with auxiliary solvent; Use Type C where conditions require cleanliness and ability for staining.

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	AWPA STANDARDS		WATERBORNE PRESERVATIVES						
	UCS	C	ACQ ⁴	ACZA ⁵	CA-B ⁶	CBA ⁷	CCA ⁸	CC ⁹	DOT ¹⁰
AGRICULTURE, FARM USE									
Round poles and posts as structural members	4B	C5, C16	.60	.60	NL ¹¹	NL	.60	NR ¹²	NL
Sawn poles and posts as structural members	4B	C2, C16	.60	.60	.31	.61	.60	NR	NL
Posts, fence									
• Round, half and quarter round	4A	C5, C16	.40	.40	.21	.41	.40	.40	NL
• Sawn four sides	4A	C2, C16	.40	.40	.21	.41	.40	.40	NL
Lumber, in soil contact	4A	C2, C16	.40	.40	.21	.41	.40	.40	NL
Lumber, not in soil contact	3B	C2, C16	.25	.25	.10	.20	.25	.25	NL
Lumber, food harvesting and storage	3B	C16, C29	NR	NR	NR	NR	NR	NR	NL
Plywood, in soil contact	4A	C9, C16	.40	.40	.21	.41	.40	.40	NL
Plywood, not in soil contact	3B	C9, C16	.25	.25	.10	.20	.25	.25	NL
Grape stakes, sawn	4A	C2, C16	.40	.40	.21	.41	.40	.40	NL
BEAMS & TIMBERS, glue laminated before treatment									
Dry environment, above ground	1, 2	C28	NL	.30 ¹³	NL	NL	NL	NL	NL
Damp environment, above ground	3B	C28	NL	.30 ¹³	NL	NL	NL	NL	NL
Ground contact	4A	C28	NL	.60 ¹³	NL	NL	NL	NL	NL
Highway construction	4B, 4C	C14	NL	NL	NL	NL	NL	NL	NL
BUILDING CONSTRUCTION MATERIAL									
Floor plate	2, 3B	C2, C15, C31	.25	.25	.10	.20	.25	.25	.25
Flooring, residential									
• Damp environment	3B	C2	.25	.25	.10	.20	.25	.25	NL
• Dry environment	1, 2	C2, C31	.25	.25	.10	.20	.25	.25	.25
Framing, interior	1, 2	C2, C15, C31	.25	.25	.10	.20	.25	.25	.25
Joists									
• Interior, above ground	1, 2	C2, C15, C31	.25	.25	.10	.20	.25	.25	.25
• Exterior, above ground	3B	C2, C15	.25	.25	.10	.20	.25	.25	NL
• Soil contact	4A	C2, C15	.40	.40	.21	.41	.40	NL	NL
Lumber									
• Above ground	3B	C2	.25	.25	.10	.20	.25	.25	NL
• Ground contact and fresh water use	4A	C2	.40	.40	.21	.41	.40	.40	NL
• Out of contact with ground and continuously protected from liquid water	2	C31	NL	NL	NL	NL	NL	NL	.25
Permanent Wood Foundation									
• Lumber	4B	C22	.60	.60	NL	NL	.60	NL	NL
• Plywood	4B	C22	.60	.60	NL	NL	.60	NL	NL
Plywood									
• Sub-floor, damp above ground	2	C9	.25	.25	.10	.20	.25	.25	NL
• Exterior, above ground	3B	C9	.25	.25	.10	.20	.25	.25	NL
• Ground contact and fresh water use	4A	C9	.40	.40	.21	.41	.40	.40	NL
• Out of contact with ground and continuously protected from liquid water	2	C31	NL	NL	NL	NL	NL	NL	.25
Poles, building									
• Round	4A, 4B	C4, C16	.60	.60	NL	NL	.60	NL	NL
• Sawn	4A, 4B	C2, C16	.60	.60	.31	.61	.60	NL	NL
Studs	3B	C2, C15	.25	.25	.10	.20	.25	.25	.25
DECKING									
Highway Bridge	4B	C2, C14	.60	.60	NL	NL	.60	NL	NL
Above ground	3B	C2, C15	.25	.25	.10	.20	.25	NL	NL
Ground contact	4B	C2, C15	.40	.40	.21	.41	.40	NL	NL
FENCES									
Pickets, slats, trim	3A, 3B	C2, C15	.40	.40	.21	.41	.40	NL	NL
Posts, sawn	4A	C2, C15	.40	.40	.21	NL	.40	NL	NL
Posts, round	4A	C5	.40	.40	.21	NL	.40	.40	NL
HIGHWAY MATERIAL									
Lumber and timbers for bridges, structural members, decking, cribbing, and culverts	4B	C2, C14	.60	.60	NL	NL	.60	NL	NL
• Structural lumber and timbers:									
– In salt water use and subject to marine borer attack	5A, 5B, 5C	C3, C14	NL	2.5	NL	NL	2.5	NL	NL
– Piles, foundation, land and fresh water use	4C	C3, C14	NL	.80 – 1.0	NL	NL	.80	NL	NL
– Piling in salt water use and subject to marine borer attack	5A, 5B, 5C	C3, C14	NL	1.5 – 2.5	NL	NL	1.5 – 2.5	NL	NL
– Posts: Round, half-round, quarter round	4A	C5, C14	.40	.40	NL	NL	.40	NL	NL
– Posts: Sawn	4A	C2, C14	.40	.40	.21	.41	.40	NL	NL
– Handrails and guardrails	3B	C2, C14	.25	.25	.10	.20	.25	NL	NL
Posts, guardrail									
• Round	4A	C2, C14	.50	.50	NL	NL	.50	NL	NL
• Sawn	4A	C2, C14	.50	.50	.31	.41	.50	NL	NL
LUMBER									
Above ground	3B	C2	.25	.25	.10	.20	.25	.25	NL
Ground contact and fresh water use	4A	C2	.40	.40	.21	.41	.40	.40	NL
Out of contact with ground and continuously protected from liquid water	2	C31	NL	NL	NL	NL	NL	NL	.25
MARINE LUMBER & TIMBERS									
Fresh water	4A	C2	.40	.40	.21	NL	.40	NL	NL
In brackish or saltwater use and subject to marine borer attack	5A, 5B, 5C	C2, C18	NL	2.5	NL	NL	2.5	NL	NL
PILES									
Foundation (round)	4C	C3	NL	.80 – 1.0	NL	NL	.80	NL	NL
Land and fresh water use (round)	4C	C3	NL	.80 – 1.0	NL	NL	.80	NL	NL
Marine (round) in salt or brackish and subject to marine borer attack	5A, 5B, 5C	C3, C18	NL	1.5 – 2.5	NL	NL	1.5 – 2.5	NL	NL
Marine, dual treatment (round)	5A, 5B, 5C	C3, C18	NL	1.0	NL	NL	1.0	NL	NL
Sawn timber piles	4B	C24	NL	.60 – .80	NL	NL	.60 – .80	NL	NL
PLYWOOD									
Sub-floor, damp above ground	2	C9	.25	.25	.10	.20	.25	.25	NL
Exterior, above ground	3B	C9	.25	.25	.10	.20	.25	.25	NL
Ground contact and fresh water use	4A	C9	.40	.40	.21	.41	.40	.40	NL
Out of contact with ground and continuously protected from liquid water	2	C31	NL	NL	NL	NL	NL	NL	.25

FOOTNOTES

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| (4) Ammoniacal Copper Quat. | (9) Copper Citrate. | (12) Not recommended in AWPA Standards. |
| (5) Ammoniacal Copper Zinc Arsenate. | (10) DOT (Disodium Octaborate Tetrahydrate): a retention of 0.25 pcf DOT is equivalent to 0.17 pcf B ₂ O ₃ . | (13) Douglas fir only. |
| (6) Copper Azole. | | |
| (7) Copper Boron Azole. | | |
| (8) Chromated Copper Arsenate. | (11) Not listed in AWPA Standards. | |