

TABLE OF CONTENTS: 2010 AWWPA BOOK OF STANDARDS

Introduction – Page 1

Introduction 1

Use Category System Standards – Page 5

U1-10: User Specification for Treated Wood

1. Introduction to the Use Category System 5
 2. Service Conditions for Use Category Designations 6
 3. Guide to Treated Wood End Uses 8
 4. Standardized Preservatives 12
 5. Species and Species Groupings 14
 6. Commodity Specifications 19
 A. Sawn Products 20
 B. Posts 37
 C. Crossties and Switchties 43
 D. Poles 45
 E. Round Timber Piling 51
 F. Wood Composites 53
 G. Marine Applications 60
 H. Fire Retardant Treated Products 67
 I. Nonpressure Applications 69
 J. Nonpressure Composites 70
 K. Barrier Protection Systems 71

T1-10: Processing and Treatment Standard

Introduction 72
 1. General Requirements 73
 2. Treatment 74
 3. Results of Treatment 75
 4. Preservatives 78
 5. Quality Control and Inspection 78
 6. Retreatment 78
 7. Drying After Treatment 78
 8. Special Requirements by Commodity 79
 A. Sawn Products 79
 B. Posts 84
 C. Crossties and Switchties 87
 D. Poles 88
 E. Round Timber Piles 95
 F. Pressure Treated Composites 97
 G. Marine Applications 101
 H. Fire Retardant Treated Products 104
 I. Millwork Products 105
 J. Nonpressure Composites 106
 K. Barrier Protection Systems (*reserved*) 108

Preservatives Standards – Page 109

P1/P13-09: Standard for Creosote Preservative 109
 P2-09: Standard for Creosote Solution 110
 P3-09: Standard for Creosote-Petroleum Solution 111

P4-03: Standard for Petroleum Oil for Blending with Creosote 112
 P5-09: Standard for Waterborne Preservatives 113
 P8-09: Standard for Oil-Borne Preservatives 119
 P9-10: Standards for Solvents and Formulations for Organic Preservative Systems 121
 P17-02: (*withdrawn*) Fire Retardant Formulations 123
 P18-10: Nonpressure Preservatives 124
 P19-04: Standard for Oligomeric Alkylphenol Polysulfide (PXTS) Preservative 126
 P20-08: All Barrier Protection Systems 127
 P21-10: Standard for Acid Copper Chromate (ACC) 129
 P22-10: Standard for Ammoniacal Copper Zinc Arsenate (ACZA) 130
 P23-10: Standard for Chromated Copper Arsenate Type C (CCA-C) 131
 P24-09: Standard for Alkyl Ammonium Compound, Waterborne (AAC) 133
 P25-10: Standard for Inorganic Boron (SBX) 134
 P26-08: Standard for Alkaline Copper Quat Type A (ACQ-A) 135
 P27-08: Standard for Alkaline Copper Quat Type B (ACQ-B) 137
 P28-08: Standard for Alkaline Copper Quat Type C (ACQ-C) 139
 P29-08: Standard for Alkaline Copper Quat Type D (ACQ-D) 141
 P30-08: Standard for Copper bis dimethyldithiocarbamate (CDDC) 143
 P31-10: Standard for Copper Azole Type A (CBA-A) 144
 P32-10: Standard for Copper Azole Type B (CA-B) 145
 P33-10: Standard for Copper HDO Type A (CX-A) 146
 P34-10: Standard for Copper Naphthenate, Waterborne (CuN-W) 147
 P35-08: Standard for Pentachlorophenol (PCP) 148
 P36-08: Standard for Copper Naphthenate (CuN) 149
 P37-08: Standard for Oxine Copper (Cu8) 150
 P38-09: Standard for Alkyl Ammonium Compound, Oilborne (AAC) 151

P39-08: Standard for 4,5-Dichloro-2-N-Octyl-4-Isothiazolin-3-One (DCOI)	152	A4-03: Standard Methods for Sampling Wood Preservatives	205
P40-08: Standard for 3-Iodo-2-Propynyl Butyl-Carbamate (IPBC)	153	A5-09: Standard Methods for Analysis of Oil-Borne Preservatives	211
P41-08: Standard for Tebuconazole (TEB)	154	A6-09: Standard Method for the Determination of Retention of Oil-Type Preservatives from Small Samples	229
P42-08: Standard for Propiconazole (PPZ)	155	A7-04: Standard for Wet Ashing Procedures for Preparing Wood for Chemical Analysis.....	232
P43-08: Standard for Chlorpyrifos (CPF).....	156	A9-08: Standard Method for Analysis of Treated Wood and Treating Solutions by X-Ray Spectroscopy.....	234
P44-08: Standard for Permethrin (PER)	157	A12-09: Wood Densities for Preservative Retention Calculations	238
P45-10: Standard for Propiconazole Tebuconazole Imidacloprid (PTI).....	158	A13-03: Standard Method of Analysis for Acid Number of Naphthenic Acids in Copper Naphthenate.....	240
P46-08: Standard for Cyproconazole (CPZ).....	159	A14-03: Standard Method for Determination of Water-Extractable Copper in Copper Naphthenate.....	243
P47-08: Standard for DCOI/Imidacloprid/Stabilizer, Waterborne (EL2)	160	A15-09: Referee Methods.....	245
P48-10: Standard for Copper Azole Type C (CA-C)	161	A16-08: Standard for HPLC Method for Didecyldimethylammonium Chloride Determination in Treated Wood	246
P49-10: Standard for Fire Retardant FR-1 (FR-1).....	162	A17-09: Standard for Determination of Didecyldimethylammonium Chloride in ACQ Solutions	247
P50-10: Standard for Fire Retardant FR-2 (FR-2).....	163	A18-05: Standard for Determination of Quaternary Ammonium Compounds in Wood by 2-Phase Titration	248
P51-10: Standard for Zinc Borate (ZB).....	164	A19-08: Standard Method for Sample Preparation for Determining Penetration of Preservatives in Wood.....	250
P52-09: Standard for IPBC-SB-1 (IPBC-SB-1)	165	A20-03: Standard Method for Chlorothalonil Assay	252
P53-09: Standard for IPBC/PPZ/TEB-SB-1 (IPBC/PPZ/TEB-SB-1)	166	A21-08: Standard Method for Analysis of Wood and Wood Treating Solutions by Inductively Coupled Plasma Emission Spectrometry.....	254
P54-09: Standard for Alkaline Copper DCOI (ACD)	167	A22-06: Standard Method for the Quantitative Determination of Creosote in AWPA P3 Creosote-Petroleum Oil Solutions	258
P55-10: Standard for Alkaline Copper Betaine (KDS)	168	A26-08: Standard Method for Analysis of Fire Retardant Solutions and Wood by Titration.....	260
P56-10: Standard for Alkaline Copper Betaine Type B (KDS-B)	169	A28-08: Standard Method for Determination of Propiconazole and Tebuconazole in Wood, in Waterborne Formulations and in Treating Solutions by HPLC	262
P57-10: Standard for Alkaline Copper Betaine (KDS) (<i>nonpressure use</i>)	170	A30-08: Standard Method for the Determination of 4,5 Dichloro-2-N-Octyl-4-Isothiazolin-3-One (DCOI) in Wood by High Performance Liquid Chromatography (HPLC).....	264
P58-10: Standard for 3-Iodo-2-Propynyl Butyl Carbamate/Permethrin (IPBC/PER)	171		
 Hydrocarbon Solvent Standards – Page 172			
HSA-09: Standard for Hydrocarbon Solvent, Type A.....	172		
HSC-09: Standard for Hydrocarbon Solvent, Type C	174		
HSF-09: Standard for Hydrocarbon Solvent, Type F	176		
 Analysis Method Standards – Page 177			
A1-06: Standard Methods for Analysis of Creosote and Oil-Type Preservatives	177		
A2-09: Standard Methods for Analysis of Waterborne Preservatives and Fire-Retardant Formulations	188		
A3-08: Standard Methods for Determining Penetration of Preservatives and Fire Retardants	199		

E11-06: Standard Method of Determining the Leachability of Wood Preservatives..... 393

E12-08: Standard Method of Determining Corrosion of Metal in Contact with Treated Wood..... 396

E13-09: Standard Method of Testing to Determine the Water Repellency of Pressure Treated Lumber or Pressure Applied Water Repellents..... 399

E14-07: Standard Method of Evaluating Wood Preservatives in a Soil Bed..... 400

E15-03: Accelerated Laboratory Procedure for Evaluating the Efficacy of Diffusible or Volatile Internal Remedial Preservatives..... 404

E16-09: Standard Field Test for Evaluation of Wood Preservatives to be Used Out of Ground Contact: Horizontal Lap-Joint Method..... 407

E17-07: Standard Method for Determining Corrosion Rate of Metals in Contact with Treating Solution..... 412

E18-06: Standard Field Test for Evaluation of Wood Preservatives Intended for Use Category 3B Applications – Exposed, Out of Ground Contact, Uncoated – Ground Proximity Decay Method..... 414

E19-08: Standard Method for Determining Preservative Fixation of Inorganic Waterborne Wood Preservatives..... 419

E20-08: Standard Method for Determining the Leachability of Wood Preservatives in Soil Contact..... 421

E21-06: Standard Test Method for the Evaluation of Preservative Treatments for Lumber and Timbers Against Subterranean Termites in Above-Ground, Protected Applications (UC1 and UC2)..... 424

E22-09: Standard Accelerated Laboratory Method for Testing the Efficacy of Preservatives Against Wood Decay Fungi Using Compression Strength..... 429

E23-09: Accelerated Method of Evaluating Wood Preservatives in Soil Contact..... 436

E24-06: Standard Method of Evaluating the Resistance of Wood Product Surfaces to Mold Growth..... 440

E25-08: Standard Field Test for Evaluation of Wood Preservatives to be Used Above Ground (UC3B): Decking Method..... 444

E26-10: Standard Field Test for Evaluation of Wood Preservatives Intended for Interior Applications (UC1 and UC2): Termite Ground Proximity Method..... 447

E27-10: Standard Field Test for Evaluation of Wood Preservatives to be Used Out of Ground Contact: Three-Component Horizontal Lap-Joint Method..... 454

Technical Committee Regulations – Page 459

Technical Committee Regulations..... 459

Appendices..... 472

 A. Guidelines for Evaluating New Wood Preservatives for Consideration by AWPAs..... 472

 B. Guidelines for Evaluating New Fire Retardants for Consideration by AWPAs..... 479

 C. Protocol for Standardization of New Millwork Preservative Systems..... 482

 D. Protocol for Standardization of New Wood Preservative Finishes..... 484

 E. Recommended Method for Determining the Treatability of a Species for Inclusion in AWPAs Commodity Standards for Sawn Material..... 486

 F. Guidelines for Evaluating Composite Wood Products Preservative Treated Using Nonpressure Processes..... 488

 G. Surface Applied Wood Preservative Finish Performance Testing Guideline..... 489

 H. Evaluating Preservatives for Remedial Treatment..... 492

 I. Reaffirmation Requirement Guidelines..... 495

 J. Preservatives Review Board Procedures..... 497

 K. Data Requirement Guidelines for Solvents Used with Oil-borne Preservatives..... 499

Other Information – Page 505

List of Technical Committees..... 505

Technical Committee Application..... 507

AWPA Standardization Proposal Form..... 509

Publications List and Order Form..... 511

AWPA Membership Application..... 515

Unit Conversion Factors..... 519

Volume and Specific Gravity Conversion Tables for Creosote and Creosote Solution..... 520

Abridged Volume and Specific Gravity Correction Tables for Petroleum Oils and Pentachlorophenol and Copper Naphthenate Solutions..... 522

Volumes of Round Forest Products..... 526

Volume Correction Table for Creosote-Petroleum Solutions..... 540

Volume Correction Factors for Preservative Salt Solutions..... 541

Miscellaneous Conversion Factors and Correction Tables..... 542

Approximate Pole Weight Tables..... 544

Glossary of Terms Used in Wood Protection..... 551

Index to AWPAs Standards..... 563

Recently Withdrawn AWWA Standards

A11-93: Standard Method for Analysis of Treated Wood and Treating Solutions by Atomic Absorption Spectroscopy

A23-94: Analysis of Wood and Solutions for Propiconazole by HPLC

A24-94: Analysis of Wood and solutions for Propiconazole by Gas Chromatography (GC)

A25-01: Standard Method of Analysis of Copper Dimethyldithiocarbamate (CDDC) Treated Wood by Colorimetry

A27-99: Standard Method for Analysis of Wood for Chlorpyrifos by Gas Chromatography

A29-00: Standard for the Determination of Oxine Copper in Treating Solutions and Treated Wood by Potentiometric Bromination Titration

F1-95: Volume and Specific Gravity Conversion Tables for Creosote and Creosote Solution (Up to 59% Tar)

F2-03: Standard Abridged Volume and Specific Gravity Correction Tables for Petroleum Oils and Pentachlorophenol and Copper Naphthenate Solutions

F3-03: Standard Volumes of Round Forest Products

F4-01: Standard Volume Correction Table for Creosote-Petroleum Solutions

F5-51: Volume Correction Factors for Preservative Salt Solutions

F6-03: Miscellaneous Conversion Factors and Correction Tables

F7-05: Approximate Pole Weight Tables

M20-01: Guidelines for Minimizing Oil-Type Wood Preservative Migration

N1-06: All Millwork Products – Preservative Treatment by Nonpressure Processes

N2-05: Standard for the Preservative Treatment of Composite Wood Products by Nonpressure Processes

P17-02: Fire Retardant Formulations

Notes:

AWPA "C Standards" (e.g., C1, C2, C9, etc.) were last updated during the Fall 2002 Standardization Cycle and final editions were printed in the 2004 AWWA Book of Standards. All specifications for treated wood products from the C Standards are now found in the AWWA Use Category System Standards U1 and T1. If you are a specifier, you may simply change all of your C Standard references to AWWA Standard U1. If you are a manufacturer of treated wood products, you will need to refer to Standard T1 for the treating requirements to enable you to determine conformance with Standard U1. If references to the C Standards are still needed, individual standards may be purchased online at www.awpa.com or by contacting AWWA to purchase older editions of the Book of Standards.

AWPA "F Standards" (e.g., F1, F2, etc. as shown above) were withdrawn as AWWA Standards during the Fall 2008 Standardization Cycle, and are now printed as "other information" in the back of the Book of Standards.