

# Model Specification for Wolmanized® ET® Poles

## 1. SCOPE

This specification applies to material purchased by \_\_\_\_\_.

### 1.2

This specification covers the materials and processes to be used in the Wolman® pressure treatment of pine poles with chromated copper arsenate (CCA) and the proprietary emulsified oil treatment, ET®.

### 1.3

The length and class of poles shall be stated in the purchase order or releases.

### 1.4

The procedures and requirements of AWPA (latest edition) and ANSI 05.1 (latest revision), except as modified herein or in purchase orders shall apply.

### 1.5

Timber Products Inspection (TP) or an agency authorized by Arch shall perform the conformance inspection of the ET® pole additive system.

## 2. MATERIAL REQUIREMENTS

### 2.1 Species

This specification covers pines as listed in ANSI 05.1, and AWPA (latest editions). All poles shall be cut from live dense trees.

### 2.2 Standards and Procedures

All poles shall conform to the requirements of ANSI 05.1 and AWPA (latest editions) unless noted on the individual purchase order or release.

#### 2.2.1 Framing

The framing shall be in accordance with the purchase order requirements.

#### 2.2.2 Marking

Poles shall be marked per purchase order requirements. The letters "ET" are to be included in the brand in conjunction with the preservative retention mark.

#### 2.2.3 Size

When poles are sized prior to seasoning, a reasonable shrinkage rate should be anticipated (2%) to assure that minimum circumference requirements will be met when the pole reaches its equilibrium moisture content.

## **2.3 Storage**

### **2.3.1 Untreated material**

All untreated material should be processed in an expedient manner to avoid decay and insect attack. Material should be date controlled during processing to assure an appropriate rotation of stock to avoid unnecessary exposure to decay and/or insects. Materials may be sprayed with a fungicide that will not effect treatability. The fungicide should contain a coloring agent to indicate that the pole has been sprayed.

### **2.3.2 Treated Material**

Treated material should be stacked to avoid changes in shape. The material should be date processed and rotated to assure a first-in/first-out inventory system. The material should be stored in a manner to assure compliance to all applicable environmental regulations.

## **2.4 Preservative System**

The preservative used shall be "Wolman®" chromated copper arsenate (CCA) type C oxide formulation and shall meet the criteria of AWPA Standard P5 (latest edition). Testing to establish conformity shall be in accordance with AWPA Standards A2 or A9 (latest edition).

## **2.5 Climability Additive Systems**

The ET® working solution shall be analyzed at least once every 10 charges or as a minimum at least once per month in accordance with the procedures described in the "Wolman® ET® Additive Manual of Recommended Practice."

## **2.6 Conditioning**

All poles are to be conditioned in accordance with AWPA (latest edition) and ANSI 05.1 (latest edition) standard. The conditioning process is to be sufficient to assure that moisture is removed to allow for proper treatment and that sterilization of the wood poles occurs. Care should be taken to include only like size poles in a lot to assure that adequate conditioning as well as sterilization occurs.

### **2.6.1 Moisture Content**

The moisture content of poles shall be 28% or less as measured in the sapwood zone, two to three inches from the surface.

**2.6.2 Moisture Content Determination** Cores shall be taken from 20 randomly selected poles within a process charge. The sampling zone is the second to third inch of the pole's sapwood, taken at a point one foot above the ANSI 05.1 ground line. Samples with heart wood shall have it removed before being included in the composite sample. The moisture content shall be determined by an oven dry method such as in ASTM 04442 (latest edition).

### **3.0 TREATMENT**

Only material that has been inspected, accepted and marked conforming in their tips shall be preservative treated.

#### **3.1 Preservative**

All poles shall be treated with Wolman® CCA in accordance with AWPA Standards (latest edition except as modified or supplemented in the purchase order).

#### **3.2 Additive Enhancement**

Only poles found conforming to section 3.1 for Wolman® CCA above shall be treated the Wolman® ET® additive. Treatment is to be in accordance with the "Wolman® ET® Additive Manual of Recommended Practice."

### **4.0 RESULTS OF TREATMENT**

#### **4.1 Preservative System Retention**

The retention of Wolman® CCA shall be in accordance with AWPA Standard A2 or A9 (latest edition). The required retention is 0.60 lbs. per cubic foot in the assay zone. This assay will be based on 20 cores taken within one foot of the brand from representative poles within one cylinder charge.

#### **4.2 Preservative System Penetration**

The penetration of CCA shall be in accordance with AWPA unless changed by attached Purchase Order requirements.

#### **4.3 Additive System Retention**

The retention of Wolman® ET® will be in accordance with the "Wolman® ET® Additive Manual of Recommended Practice." The required retention is 1.0 lb. per cubic foot in the 0.0 inch to 0.5 inch assay zone. This assay will be based on 20 samples taken from individual poles within a cylinder charge. The samples shall be taken with a 9/16 inch spade bit and a minimum of 30 grams of wet shavings (approximately 15 grams of dry shavings) for analysis.

#### **4.4 Additive System Penetration**

The penetration of Wolman® ET® will be in accordance with the "Wolman® ET® Additive Manual of Recommended Practice." The penetration shall be to a depth of one inch measured at least 6 feet from the tip or butt of the pole. A minimum of 16 of the 20 cores taken shall meet this requirement to pass these penetration requirements.

### **5.0 FINAL ACCEPTANCE**

Poles meeting the above treating requirements shall be hammer marked in the butt to acknowledge their acceptance by the approved quality assurance system. Upon receipt, all poles should be observed for conformance to purchase order requirements and attention should be paid to the presence of a quality acceptance mark in the tip and butt of each pole.

