

1. Scope

- 1.1. This standard establishes consistent procedures for the specification of stain and clear coating on new interior wood surfaces.
- 1.2. The purpose of this standard is to prevent misunderstandings and conflicts when the application of stain and clear coating to interior wood surfaces is required.
- 1.3. This standard establishes criteria for estimating purposes.

2. Significance and Use

- 2.1. An inadequately written specification can create confusion in both the bidding and the application of stain and clear coatings to interior wood surfaces. The specific appearance, wood species, grain, grade, and color should be assessed and specified in the bid documents in accordance with this standard.
- 2.2. This standard establishes systems of stain and clear coating on interior wood surfaces.
- 2.3. This standard establishes the responsibilities of various parties when stain and clear coatings are applied to new interior wood.

3. Reference Documents and Standards

- 3.1. Architectural Woodwork Standards (AWS), First Edition, 2009.
- 3.2. Dictionary of Architecture and Construction, Fourth Edition, 2005.
- 3.3. Master Painters Institute (MPI), The Master Painters Glossary – Painting and Decorating Terminology, Version 4.0, 2004.
- 3.4. PCA Standard P5, Benchmark Sample Procedures for Paint and Other Decorative Coating Systems.
- 3.5. PCA Standard P11, Painter’s Caulk, Implied Requirements.

4. Definitions

- 4.1. CLEAR COATING: The application of a transparent coating to improve the appearance and to provide protection from abrasion, stain-ing, chemicals, or solvents, etc. [MPI]
- 4.2. CUSTOM GRADE: Typically specified for and adequately covers most high-quality architectural woodwork, providing a well-defined degree of control over a project’s quality of materials, work- manship, or installation. [AWS]
- 4.3. DYE: A coloring agent that is soluble in the medium in which it is mixed (e.g. water, oil, solvent). This makes a dye distinct from a pigment, which is not soluble. Color soaks into the fibers of the wood instead of being left on top like pigment. Often used to evenly color wood before staining. [MPI]

- 4.4. ECONOMY GRADE: Defines the minimum quality requirements for a project's workmanship, materials, or installation and is typically reserved for woodwork that is not in public view, such as in mechanical rooms and utility areas. [AWS]
- 4.5. FINGER JOINT: A heading joint having inter-laced, finger-like projection on the ends of the joined members. [Dictionary of Architecture and Construction]
- 4.6. PAINTING AND DECORATING CONTRACTOR: An individual or firm whose primary business is providing surface preparation and coating application service. [MPI]
- 4.7. PRE-CONDITIONER: see WASH COAT.
- 4.8. PREMIUM GRADE: Selectively used in the most visible and high-profile areas of a project, such as reception counters, boardrooms, and executive areas, providing the highest level of quality in materials, workmanship, or installation. [AWS]
- 4.9. PRE-SEALER: See WASH COAT.
- 4.10. SANDING SEALER: A clear or pigmented lacquer or alkyd used to seal a porous wood substrate or an applied wood filler. Designed to be easily sanded prior to application of finishing lacquer or varnish. (New sanding sealers have been developed based on other solvents.) [MPI]
- 4.11. SHADING: In finishing, transparent color used for highlighting and uniform color. [AWS]
- 4.12. STAIN: A solution or suspension of coloring matter in a vehicle designed to color a surface by penetration without hiding it or leaving a continuous film. True stains are classified as water stains, non-grain raising stains, oil stains, or spirit stains, according to the nature of the vehicle. [MPI]
- 4.13. WASH COAT: A reduced finish that is applied over raw wood to reduce stain penetration, or over stains and fillers to promote adhesion of the next coat. [MPI]
- 4.14. WOOD FILLER: An aggregate of resin and strands, shreds, or flour of wood, which is used to fill openings in wood and provide a smooth, durable surface. [AWS]

5. Standard Specification

- 5.1. Wood is a natural material with variations in color, texture, and grain which are a result of the natural growing process. The color of wood within a particular tree varies between the outer layers of the tree and the inner layers. There will be variations of grain patterns within any selected species. When the applied finishes are transparent or semi-transparent, some visual differences between and within individual wood members are to be expected.
- 5.2. Interior wood specified to receive stain and clear coating shall have the following characteristics:
 - 5.2.1. The wood shall be free of finger joints.
 - 5.2.2. The wood shall be made essentially finish-ready by other trades including sanding and the removal of blemishes, scuff marks, water stains, mill marks, and other surface imperfections.
 - 5.2.3. The painting and decorating contractor shall be required to perform light hand sanding only as preparation for finishes.

- 5.3. This standard establishes the following systems of stain and clear coating to be assumed when the specifications do not clearly define the number and coats and/or types of clear finishes:
- 5.3.1. On rough sawn wood – One coat of stain only.
 - 5.3.2. On smooth wood – One coat of stain and two coats of clear finish.
- 5.4. Stained wood shall have differences in appearance due to natural variations of wood, including hard wood, soft wood, veneers, composites, and coloration of wood species.
- 5.5. All wood members should be previously unfinished.
- 5.6. Wood samples used for color matching purposes shall be made from the same wood to be utilized on the project.
- 5.7. If the application of wood filler, wash coat, multiple coats of stain, a shading coat, toners, or a dye is required, these items constitute extra work.
- 5.8. If the painting and decorating contractor is required to remove blemishes, scuff marks, water stains, mill marks, and other surface imperfections when not strictly specified, these items constitute extra work.
- 5.9. The painting and decorating contractor shall perform light hand sanding prior to application of finishes and between coats, as required, with appropriate sandpaper.
- 5.10. On smooth wood, the painting and decorating contractor shall either putty nail holes with colored putty that approximates the color of the finished wood. Putty shall be applied before the final coat of clear finish. Nail holes may also be filled using colored wax sticks after the wood is finished.
- 5.11. The acceptability of finish on smooth wood shall be determined when viewed without magnification, at a distance of no less than thirty-nine (39) inches or one (1) meter under finished lighting conditions and from a normal viewing position. The surface shall be smooth in appearance and feel, with only minimal evidence of brush strokes and/or orange peel.
- 5.12. Additional compensation to the painting and decorating contractor shall be invoiced in accordance with PCA Standard P18.

6. Comments

- 6.1. Since the level of stain and clear coating impact the painting and decorating contractor's costs, the project specification should incorporate the appropriate system(s) of stain and clear coating as defined by this standard.
- 6.2. It is recommended that benchmark samples be employed in accordance with PCA Standard P5, Benchmark Sample Procedures for Paint and Other Decorative Coating Systems. Multiple samples of the same finish could indicate the range of appearance differences to be expected. Approval of samples should be in accordance with the provisions of that standard.
- 6.3. This standard is a nationally recognized consensus document for the painting and decorating industry's work practices.

7. Disclaimer of Liability

- 7.1. PCA does not warrant or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any of the information contained herein.