



Painting of Shop Primed Substrates

1. Scope

- 1.1 The purpose of this standard is to establish procedures for the evaluation of shop primer applied by an entity other than the painting and decorating contractor.
- 1.2 This standard assigns responsibilities to the various entities involved when field coating of shop primed substrates is required.
- 1.3 This standard defines criteria to determine if the shop primer is defective.
- 1.4 This standard assigns financial responsibilities when it is determined that the shop primer is defective.
- 1.5 This document applies to shop primed materials including wood, hardboard, medium density fibre board, metal, synthetics, cementitious materials, and other compositional substrates.

2. Significance and Use

- 2.1 The shop primer applied to various substrates should be in a condition ready to receive the finish coats specified.
- 2.2 This standard applies when shop primer applied to various substrates is unsuitable for finish painting.
- 2.3 This standard applies when remedial measures, such as sanding, stripping, and re-priming are required to be performed prior to the application of specified finish coats.

3. Reference Standards and Documents

- 3.1 MPI, The Master Painters Glossary- Painting and Decorating Terminology, Version 4.
- 3.2 PDA 1 Touch up Painting and Damage Repair: Financial Responsibility and Definition of a Properly Painted Surface.
- 3.3 PDA 9 Definition of Trade Terms.
- 3.4 If there is a conflict between any of the references and this standard, this standard shall prevail.

4. Definitions

- 4.1 **ADHESION:** The act or state of adhering. The property that makes a paint film stick to the surface. The

degree of attachment between a coating film and the underlying material with which it is in contact. The latter may be another coat of paint (inter coat adhesion) or any other material such as wood, metal, plaster, etc. (adhesion between a coating and a substrate). Adhesion should not be confused with cohesion. [MPI]

- 4.2 **BARRIER COAT:** A coating or primer designed to shield or block the chemical or solvent interaction between a substrate and a finish coating. [MPI]
- 4.3 **CHANGE ORDER:** An agreement to modify or alter the original contract work. This includes but is not limited to, corrective work for "Damage caused by others" and "Latent damage." [PDA 1]
- 4.4 **CONTRACTING ENTITY:** The general contractor, owner of the property, construction manager, developer or other entity legally responsible for the agreement or authorized agent of any of the above. [PDA 9]
- 4.5 **DRY FILM THICKNESS:** The depth or thickness of a coating in the dry state. Usually expressed in mils or microns. [MPI]
- 4.6 **EROSION:** The wearing away of a paint film through the abrasive action of wind, dust, and dirt. This condition can be accelerated by the degradation of the binder through UV light causing chalking. The erosion can proceed till the undercoating or the substrate are exposed. [MPI]
- 4.7 **HOLD-OUT:** The property (of a substrate or coating) that provides a low porosity surface which reduces the penetration of subsequently applied coatings. This improves the gloss and colour uniformity of the finishing coats. [MPI]
- 4.8 **INTERMEDIATE COAT:** Any coating applied between the primer and the finish coat. [MPI]
- 4.9 **PAINTING AND DECORATING CONTRACTOR:**
The individual or company contracted to apply paints, coatings, wallcoverings and other decorative finishes. [PDA 9]
- 4.10 **PRIME COAT:** The first coat on a substrate. [MPI]

- 4.11 PRIMER:** The first of two or more coats of paint, varnish, or lacquer. It is applied to improve adhesion of the succeeding coat and/or provide passive corrosion resistance to a metal surface. [MPI]
- 4.12 PROPERLY PAINTED SURFACE:** A surface uniform in appearance, colour, texture, hiding and sheen. It is also free of foreign material, lumps, skins, runs, sags, holidays, misses, or insufficient coverage. It is also a surface free of drips, spatters, spills or overspray caused by the Painting and Decorating Contractor's workforce. [PDA, 1]
- 4.13 SHOP PRIMED:** A prime coat applied by an entity other than the painting contractor. [PDA, P9]
- 4.14 SUBSTRATE:** A variant of substratum. In painting, any surface to be painted, including wood, concrete, masonry, steel, other metals, and various other materials or previous paints. A substrate can, therefore, be bare or covered. A previously unpainted surface sometimes is called the "original substrate." [MPI]

5. Standard Specification

- 5.1 The shop primer shall have the following characteristics:**
- 5.1.1** The shop primer shall be of the generic type that is recommended for the substrate material to which it will be applied.
- 5.1.2** The shop primer used shall possess the properties appropriate for the substrate material including stain blocking, alkali resistance, corrosion resistance, and hold out.
- 5.1.3** The shop primer applied shall be directly compatible with the finish coats specified without the need for a barrier coat or intermediate coat.
- 5.1.4** The shop primer shall be applied at a dry film thickness that is recommended by the manufacturer of the shop primer.
- 5.1.5** The shop primer shall have good adhesion to the substrate material to which it was applied.
- 5.2 Conditions for the application, shipment and storage of shop primed materials:**
- 5.2.1** Prior to the application of the shop primer, the applicator of the shop primer shall conduct testing to ensure that the moisture content of the substrate material is within the range specified by the manufacturer of the shop primer.
- 5.2.2** The shop primer must be free of defects such as foreign material, lumps, skins, runs, sags, holidays, misses, insufficient coverage, drips, spatters, spills or

overspray so that a properly painted surface as defined by PDA Standard P1 may be obtained when finish coats are applied.

5.2.3 All butt ends and edges of members receiving shop primer shall be fully primed.

5.2.4 The shop primer shall be properly and fully cured prior to shipment from the shop.

5.2.5 Shop primed items shall be properly packaged so that the primer is not damaged during shipment.

5.2.6 Shop primed items shall be stored at both the shop and the jobsite in a manner that prevents degradation and erosion of the primer.

5.2.7 If damage or defects occur to the shop primer as a result of installation, then such damage and defects shall be corrected by an entity other than the painting contractor.

5.3 Any shop primer that is not in full compliance with the conditions listed in paragraphs 5.1 and 5.2 shall be considered to be defective.

5.4 A party other than the painting contractor is responsible for correction of defective shop primer. If it is necessary for the Painting and Decorating Contractor to perform any remedial work due to defective shop primer such as sanding, stripping, and re-priming, then the Painting and Decorating Contractor shall be compensated for this work. Upon receiving a change order and authorization to proceed on either a lump sum or time and material basis from the Contracting Entity, the Painting and Decorating Contractor will proceed with the repair.

6. Comments

- 6.1** This standard establishes criteria for shop priming various substrates.
- 6.2** This standard establishes financial responsibility when the shop applied primer is defective.
- 6.3** This standard is intended to establish a consensus document for the painting industry's practices.

7. Notes

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