

December 2013, Rev. 01

09 9100 - Painting

PART 1. GENERAL

1.01 Requirements:

- A. Any changes from this standard shall be submitted to and be approved by the Project Manager.
- B. All design, remodeling and construction shall meet all appropriate Federal, State and Local codes.

1.02 Submittals

- A. Submittals for all paints and coatings and associated colors shall be based upon the Benjamin Moore color system.
- B. Submittals for all paints and coatings and associated colors shall be provided to the Owner for approval prior to application. Substitutions of approved materials, colors or manufacturers shall be approved by the Owner.
- C. Beginning of application constitutes acceptance of these standards and conditions.
- D. Surface preparation and field painting of exposed interior items and surfaces.
- E. All Volatile Organic Compound (VOC) products shall conform to the Federal guidelines for VOC paints.

1.03 References

- A. American Society for Testing and Materials (ASTM) D 16 – Standard Terminology for Paint, Related Coatings, Materials, and Applications.
- B. PDCA (Painting and Decorating Contractors of America): P5 – Benchmark Sample Procedures for Paint and Other Decorative Coating Systems.
- C. Steel Structures Painting Council (SSPC) SP6 – Commercial Blast Cleaning Procedures.
- D. Steel Structures Painting Council (SSPC) SP10 – Near White Blast Cleaning Procedure.

1.04 Quality Assurance

- A. Applicator Qualifications: Engage an experienced applicator who has completed painting system applications similar in material and extent to that indicated for the

Project with a record of successful in-service performance. A list of successful projects and contact list may be requested.

- B. Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.
 - C. Paint exposed surfaces. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.
 - D. Apply water based paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 90 deg F.
 - E. Apply solvent-thinned paints only when temperature of surfaces to be painted and ambient air temperatures are between 45 and 95 deg F.
 - F. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by the manufacturer during application and drying periods.
 - G. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
 - H. The Contractor will be required to replace all unsatisfactory work caused by improper or defective surfaces as directed, at no additional cost to the Owner.
 - I. Inspections Agency: The Owner reserves the right to employ an independent testing agency to verify acceptability of substances and test coating quality, dry mil thickness, and conformance to application requirements.
- 1.05 Delivery, Storage, and Handling

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label.
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F (7 deg C). Maintain storage containers in a clean condition, free of foreign materials and residue.
- C. Take necessary precautions to ensure that work areas, storage areas, and mixing areas are protected from fire and health hazards resulting from handling, mixing, and application.

1.06 Extra Stock

- A. The installing Contractor shall supply to the Owner extra paint products used for future touch-up purposes. All paint materials and colors shall be clearly identified.

PART 2. PRODUCTS

2.01 Paints and coatings

- A. All paints and coatings shall be *architectural grade* as opposed to *contractor grade*.
- B. All paints and coatings shall conform to applicable code for flame/fuel/smoke ratings requirements.
- C. All paints and coatings shall be stored and applied in environmental conditions required by manufacturer’s instructions.
- D. All paints and coatings shall be applied in accordance with manufacturer’s instructions.
- E. All new work shall be a three-coat system. Different shades of color shall be used for each coat. The number of coats for existing work shall be as required to equal new work.
 - 1. Primer – one coat
 - 2. Finish – two coats
- F. The preferred materials and finishes for interior walls are those which are durable, easily maintained and resistant to normal occupancy damage. The use of vinyl wall covering and wood paneling will be considered for specific areas.
- G. **Interior wall paints shall be eggshell finish.** No flat finishes shall be permitted. Professional note: Where the wall substrate is drywall, continuing runs of wall of more than 25 feet shall be avoided, especially in corridors.
 - 1. The preferred colors for offices, hallways, and common areas are:

Color Description	Benjamin Moore Number
NIU White (NIU off-white mix)	1457
Navajo White	947
Hawthorne Yellow	HC-4
Manchester Tan	HC-81
Wythe Blue	HC-143
Revere Pewter	HC-172

- 2. Use NIU White for maintenance situations.

- H. Piping in mechanical and boiler rooms and above finished ceilings does not have to be painted, except for external corrosion-control piping. All other exposed piping shall be painted a color appropriate to the space.

2.02 Manufacturers

- A. Unless otherwise approved in advance in writing by the Project Architect or as otherwise specified, all painting materials shall be the products of one or more of the following manufacturers:

- | | |
|---------------|--|
| 1. B. Moore | Benjamin Moore & Co., Montvale, NJ |
| 2. Hydrozo | Hydrozo Coatings Co., Lincoln, NE |
| 3. ICI | ICI Paints, Cleveland, OH |
| 4. MAB | M.A. Bruder & Sons, Inc., Philadelphia, PA |
| 5. P&L | Pratt & Lambert, Inc., Chicago, IL |
| 6. Pittsburgh | PPG Architectural Finishes, Inc., Pittsburgh, PA |
| 7. SW | Sherwin-Williams Company, Cleveland, OH |

- B. Requests for substitutions will be considered in accordance with the provisions of Division 1 of Specification document.

2.03 Paint Materials – General

- A. Material compatibility

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

- B. VOC content: Products shall comply with VOC limits of authorities having jurisdiction and , for interior paints and coatings applied at Project site, will be calculated according to 40 CFR 59, Subpart D (EPA Method 24).

- C. Colors: refer to Finish Schedule and Paint Legend provided by Project Architect.

PART 3. EXECUTION

3.01 Examination

- A. Examine substrates, areas, and conditions, with applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work. Test surfaces as required.

1. Do not begin to apply paint until unsatisfactory conditions have be corrected and surfaces receiving paint are thoroughly dry.

2. No priming or painting of wood will be permitted on or in buildings where concrete, masonry, plaster, or other “wet” operations are in process of installation, application, or drying.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
1. Concrete: 12 percent.
 2. Masonry (Clay and CMU): 12 percent.
 3. Wood: 15 percent.
 4. Plaster: 12 percent.
 5. Gypsum Board: 12 percent.
- C. Inspect and verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
1. Beginning coating application constitutes Contractor’s acceptance of substrates and conditions.

3.02 Preparation

- A. Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, electrical panel box doors and similar items already in place that are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
 2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- B. Protect work of other trades, whether to be painted or not, against damage by painting. Correct damage by cleaning, repairing, replacing, and/or repainting, as acceptable to the NIU project representative. Provide “Wet Paint” signs to protect newly painted finishes. At completion of construction activities of other trades, touch up and restore all damaged or defaced painted surfaces.
- C. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants
1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall onto wet, newly painted surfaces.

2. Provide barrier coats over incompatible primers or remove and re-prime. Notify NIU project representative in writing of problems anticipated with use of specified finish coat material with substrates primed by others.

3.03 Application

- A. Apply paints according to manufacturer's written instructions. Use applicators and techniques best suited for paint and substrate indicated. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
- B. The number of coats and film thickness required is the same regardless of the application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. Sand between applications where sanding is required in order to produce an even, smooth surface in accordance with the manufacturer's directions. Sand lightly between each succeeding enamel or varnish coat.
- C. Apply first coat to surfaces that have been cleaned, pre-treated or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
- D. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
- E. Finish exterior doors on tops, bottoms, and side edges the same as exterior faces.
- F. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance. Give special attention to ensure that surfaces, including edges, corners, crevices, welds and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
- G. All materials will be applied under adequate lighting, evenly spread and flowed on smoothly. Cut in sharp lines and color breaks.
 1. Pigmented (opaque) finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance, and overage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, or other surface imperfections will not be acceptable.
 2. Transparent (clear) finishes: Use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes, or other surface imperfections. Provide satin finish for final coats.

3.04 Cleaning and protection

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.
- E. Provide “Wet Paint” signs as required to newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after competing painting operations.
- F. At completion of construction activities or other trades, touch up and restore damaged or defaced painted surfaces.

End of Division 09 9100

This section of the NIU Design and Construction Standards establishes minimum requirements only. It should not be used as a complete specification.