

Reprocessed Post-Consumer Latex Paint Specification

Painting Section 09910

OVERVIEW

Minnesota's Reprocessed Paint Specification (RPS) is a comprehensive recycled paint specification. It incorporates specifications developed by the federal government (the General Services Administration, the agency that oversees federal purchasing), and specifications from individual states (California, Massachusetts and Washington). The RPS also includes information from virgin paint guides and Green Seal's environmentally preferable procurement standards for paint.

This specification is tailored to the Construction Specification Institute (CSI) format, which includes three sections: General, Products and Execution. The model specification provides users with clear definitions of recycling. Many users will find the provisions of the full specification relevant. However, users may use just part of the specification, depending on the nature the project (new construction, maintenance or remodeling), budget, architect/designers preferences, and the needs of the end-user or building owner.

As more recycled paint is used, demand for recycled paint will increase and become a standard for new construction, maintenance and remodeling projects. Using this specification will stimulate new local recycling markets and reduce costs for owners or contractors on future projects.

REPROCESSED PAINT

In this specification, *reprocessed latex paint* is a residential or commercial consumer product made with a minimum of twenty percent (20%) post-consumer recycled material. Reprocessed latex paint is mixed with virgin materials such as resins and colorants and is extensively tested before packaging for resale. Reprocessed latex paint must meet or exceed standards required of virgin latex paint products.

USING THE REPROCESSED PAINT SPECIFICATION

The specification language makes it easier to incorporate recycled paint into projects. It can be adapted by a wide range of users — design firms, consulting firms, general contractors, sub-contractors, corporations, associations, public agencies and educational institutions.

- Architects, designers, and others who make specifications can make environmentally informed decisions about using recycled paint as an alternative to non-recycled architectural coating materials. The RPS can be used in construction documents.
- Public or private building owners, general contractors, and facility managers can use the RPS in their efforts to plan, construct and maintain more environmentally responsive facilities.
- Sub-contractors or painting contractors can use the RPS as a guide for product application, touch-up requirements, and integration of waste management and recycling for extra stock at the end of a project.
- Paint manufacturers of both virgin architectural and recycled latex paint can use the RPS to guide their efforts to enhance the environmental performance of their products.
- State and local governments can use the RPS to develop new state contracts/bids for recycled paint for procurement programs.
- Private organizations and public agencies concerned with pollution prevention and other issues relating to the built environment will find useful data and information in the RPS.
- Architectural educators and students can use the RPS as a reference on the role that specifications play in environmentally responsible design.

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SECTION 09910

REPROCESSED POST-CONSUMER LATEX PAINT

PART ONE — GENERAL

1.01 SUMMARY

- A. Section Includes: Interior painting where indicated and/or scheduled with Reprocessed Post-Consumer Latex Paint.
- B. Products Supplied but not Installed under this Section.
- C. Products Installed but not Supplied under this Section.
- D. Related Sections
- E. Measurement Procedures: Contractor shall provide a breakdown on the gallons and percentage (%) of post-consumer content materials used in this product.
- F. Payment Procedures: With each payment the Contractor shall submit information contained in Section 1.01 in addition to other payment procedures administrators may request.
- G. Alternates: Painting subcontractor may exercise the option to contribute their own excess paint to the Owner's feedstock. This feedstock shall be subject to review by the Owner's representative and the paint manufacturer. As stipulated by both the owner and the manufacturer, this contribution may result in an overall deduct for the cost of the reprocessed latex paint supplied for the project.

1.02 REFERENCES

- A. ASTM D 652 – Standard Test Method for Consistency of Paints Using the Stormer Viscometer.
- B. ASTM D 1210 – Standard Test Method for Fineness of Grind of Dispersion of Pigment-Vehicle Systems by Hegman-Type Gage.
- C. ASTM D 1475 – Standard Test Method for Density of Liquid Coatings, Inks, and Related Products.
- D. ASTM E 70 – Standard Test Method for pH of Aqueous Solutions with the Glass Electrode.
- E. ASTM D 2805 – Standard Test Method for Hiding Power of Paints by Reflectometry (Spectrometer).
- F. ASTM D 4400 – Standard Test Method for Sag Resistance of Paints Using a Multi-Notched Application.
- G. ASTM D 4062 – Standard Test Method for Leveling of Paints by Draw-Down Method.
- H. ASTM D 2486 – Standard Test Method for Scrub Resistance of Wall Paints.
- I. ASTM D 1640 – Standard Test Method for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature.
- J. ASTM D 1296 – Standard Test Method for Odor, Volatile Solvents and Dilutants.
- K. Periodic testing of ASTM D 3960 – Standard Test Method for Determining Volatile Organic Compound (Content) (VOC) for Paints and Related Coatings.

1.03 DEFINITIONS

- A. Conform to ASTM D 16 for interpretation of terms used in this section.

- B. Feedstock. Feedstock is defined as a manufacturer's raw material, which can be made of either virgin, post-consumer recycled or post-industrial recycled material. Post-consumer recycled and post-industrial recycled material can be used as an ingredient in a manufacturing process as an effective substitute for virgin material products.
- C. Post-consumer recycled material. Post-consumer recycled material means a finished material which would normally be disposed as a solid waste, having completed its life cycle as a consumer item, and does not include manufacturing or converting wastes. This refers to material collected for recycling from office buildings, homes, retail stores, etc. Such term does not include post-industrial recycled material.
- D. Post-industrial recycled material. Post-industrial recycled material is material byproducts created during the original manufacturing process.
- E. Virgin material. Products made with one hundred percent (100%) new raw materials. Contains no recycled material.

1.04 SYSTEM DESCRIPTION

- A. Reprocessed Latex Paint. Reprocessed latex paint is residential or commercial consumer product that shall be made with a minimum of twenty percent (20%) post-consumer recycled material. Reprocessed latex paint is mixed with virgin materials such as resins and colorants and is extensively tested before packaging for resale. Reprocessed latex paint shall meet or exceed standards required of virgin latex paint products. Reprocessed latex paint shall be intended for use as specified in Section 2.03B.
- B. Each batch must be tested for physical properties following generally accepted laboratory procedures and/or ASTM methods.
- C. Each batch must be tested for physical properties following generally accepted laboratory procedures and ASTM methods.
 1. ASTM D 562 – Viscosity: The working properties shall be satisfactory, the paint shall show no tendency to sag or run, and shall level to a smooth surface of satisfactory appearance. Test by viscometer. Specification: 90-110 KU.
 2. ASTM D 1210 – Fineness of Grind: Test by Hegman grind standard. Specification: 3 or above.
 3. ASTM D 1475 – Weight per Gallon: Test by Gardo Physical Density cup or similar. Specification: 10.0 – 11.5 pounds per gallon.
 4. ASTM E 70 – Alkalinity: Test by measuring by pH meter apparatus. Specification: 8.5-9.5.
 5. ASTM D 523 – Gloss: Test by Byk Gardener gloss measurement of similar instrumentation. Specification: Flat paints 0-3 at 60 degrees F; Eggshell paints 4-10 at 60 degrees F.
 6. ASTM D 2805 – Hide: Test by contrast ratio measurements or similar. Specification: 0.95 or higher.
 7. ASTM D 4400 – Sag Resistance: Test by application of Leneta Anti-Sag Meter ASM-1 or similar. Specification: Greater than 8.
 8. ASTM D 4062 – Flow and Leveling: Test by application of Leneta Leveling Test Blade or similar. Specification: 7 or above.
 9. ASTM D 2486 – Scrubbability: Test by Byk Gardener Abrasion Tester or similar. Specification: Flat paints greater than 100 cycles. Specification: Eggshell paints greater than 200 cycles.
 10. ASTM D 1640 – Dry Time: Test by application of Leneta wet film-application draw down panel or similar at 3 mils wet. Specification: Dry to touch in 30 minutes.
 11. ASTM D 1296 – Odor and Volatile Solvents and Dilutants:
 12. Periodic testing of ASTM D 3960 – Volatile Organic Compound (Content) (VOC) of Paints and related coatings to meet national VOC laws.

1.05 SUBMITTALS

- A. Submit product data tests and sample draw-downs.
- B. Samples
 - 1. Submit two painted samples, minimum 8"x8" in size, illustrating the pre-selected colors for each system selected, with the specified coats cascaded. Submit on stiff paper backed material.
 - 2. Identify each sample as to its finish formula, color name and number.
 - 3. Colors to be selected prior to commencement of work.
- C. Quality Assurance/Control Submittals
 - 1. Design Data, Test Reports
 - 2. Test Certificates of ASTM tests
 - 3. Manufacturer's Instructions
 - 4. Qualification Statements
- D. Submittals at Project Closeout
 - 1. Maintenance Data: Submit data on cleaning, touch up, and painted surfaces.

1.06 QUALITY ASSURANCE

- A. Qualifications
 - 1. Manufacturer Qualifications: Company with documented experience in reprocessing latex paint, as specified in Section 1.05, with a minimum of three years of documented experience.
 - 2. Applicator Qualifications: Company with documented experience performing the work of this Section, a minimum of two years experience is preferred.
- B. Regulatory Requirements
 - 1. Comply with all current applicable Environmental Protection Agency (EPA), state or local requirements limiting Volatile Organic Compounds (VOC) for architectural and industrial coatings.
- C. Certifications
 - 1. Paint manufacturer shall certify the percentage of post-consumer content in reprocessed latex paint.

1.07 DELIVERY STORAGE AND HANDLING

- A. Deliver paint in sealed original labeled containers, bearing the manufacturer's name, type of paint, brand name, color designation and instructions for mixing and/or reducing.
- B. The post-consumer recycled material shall be delivered to the manufacturer as a pre-sorted feedstock ready for reprocessing. The painting subcontractor shall provide an accurate estimate of total quantity of each color to be used.
- C. Any waste paint created during testing and reprocessing shall be retained by the paint manufacturer to be recycled.
- D. Store paint materials at an ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in a ventilated area as required by the manufacturer's instructions.
- E. Painting subcontractor shall, upon availability in the marketplace, recycle all applicable materials such as paint containers and paint, where possible.

1.08 PROJECT AND SITE CONDITIONS

- A. Project and Site Environmental Requirements

1. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
2. Do not apply as an exterior coating or finish.
3. Provide lighting levels of 80 foot-candles measured mid height at substrate surface to be finished.
4. Reprocessed latex paint shall be intended for interior application as specified in Section 2.05B.
5. Minimum Application temperatures for latex paints: 45 degrees F (7 degrees C), for interiors unless required otherwise by manufacturers instructions. Provide adequate continuous ventilation and sufficient heating facilities to maintain minimum temperatures for 24 hours before and 48 hours after the application of finishes.
6. Contractor shall properly ventilate and exhaust the areas in which the paint is applied. Special care and coordination shall occur at phased interior remodelings to avoid a build up of paint fumes. This coordination with the owner and contractor shall take place prior to application of this system.

1.09 WARRANTY

- A. The manufacturer shall warrant this material against any defects. Reprocessed latex paint shall meet or exceed standards required of virgin latex paint products and as such shall carry the same warranties as are provided with virgin latex paint products.

1.10 MAINTENANCE AND EXTRA STOCK

- A. Painting contractor shall provide an additional amount of unopened and partially used gallons of reprocessed paint for touch-up and maintenance. This amount shall not exceed ten percent (10%) for each color.

PART 2 — PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable Manufacturers: Subject to compliance with the specified requirements, provide products of one of the following:
- B. Substitutions: See Section 01600-Product Requirements.

2.02 MATERIALS

- A. All reprocessed latex paint, including but not limited to finish coat and primer, must meet the following requirements:
 1. Conform to all specified requirements for non-hazardous material contents.
 2. Contain a minimum of twenty percent (20%) post-consumer recycled material.
 - a. Preference will be given to a manufacturer who utilizes feedstock from Minnesota origin, unless it can be shown that Minnesota feedstock supply has been depleted for use in this contract.
 3. Conform to all specified performance and application requirements.
- B. Primer: Primer is to be reprocessed as a first preference and be reprocessed as specified in 2.02A. Primer material must be of such properties as to provide performance specified for the paint system.

2.03 REPROCESSED LATEX INTERIOR PAINT

- A. General Requirements: Ready mixed reprocessed interior paint products:
 - 1. To a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating.
 - 2. For good flow and brushing properties.
 - 3. Capable of drying or curing free of streaks or sags.
- B. Provide reprocessed latex interior paint formulated for the following applications and finish:
 - 1. Applications:
 - a. Gypsum board.
 - b. Plaster.
 - c. Masonry.
 - d. Concrete block.
 - e. Wood.
 - 2. Finishes:
 - a. Flat.
 - b. Egg-shell.
 - c. Ceiling paint (non-dry-fall).
 - 3. Paint is to be available in one- and five-gallon quantities. Clearly mark on containers that the paint is reprocessed. Indicate color and finish.
- C. All paint is to be delivered to job site in manufacturer's original containers and labeled according to requirements specified in Part 1.

1.04 ACCESSORIES

- A. Accessory Materials: Primers paint thinners and other materials not specifically indicated but required to achieve the finishes specified; commercial quality.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

2.05 SOURCE QUALITY CONTROL

- A. Within an acceptable range, samples for color shall fall within a Delta "E" range of ± 2.5 . Touch-up must be from the original reprocessed batch with the original finish coat. Remove, refinish, or repaint work not in compliance with specified requirements, until such requirements are met.
- B. Manufacturer is to perform the testing in accordance with specified standards, to verify that paint materials being supplied will meet specified performance.
- C. Each batch of paint is to be tested for the following:
 - 1. Viscosity.
 - 2. Fineness of Grind.
 - 3. Weight per Gallon.
 - 4. Alkalinity.
 - 5. Gloss.
 - 6. Sheen.
 - 7. Hide.
 - 8. Sag Resistance.
 - 9. Flow and Leveling.
 - 10. Scrubbability.
 - 11. Dry Time.

- D. Manufacturer is to submit test results as part of project submittals for approval.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine the areas and conditions under which painting is to be applied and notify the Contractor in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. General

1. Remove and protect hardware, lighting fixtures and similar items before painting. Protect finished surfaces in areas where paint is being applied with clean drop cloths and suitable masking.
2. Clean surfaces to be finished as required to remove oil grease, dust and dirt. Sand where necessary to properly prepare surfaces to receive finish.

B. Surface Preparation

1. For Cementitious Materials: Prepare cementitious surfaces of concrete and concrete block by removing efflorescence, chalk, dust, dirt, grease and oils.
 - a. Determine alkalinity (pH) and moisture content (%) of surfaces to be painted by performing appropriate tests. For cement, maximum seventeen percent (17%) humidity and pH of 7-10; for wood, maximum fifteen percent (15%) humidity; and for gypsum board, maximum fifteen percent (15%) humidity.
 - b. If surfaces are sufficiently alkaline to cause blistering and burning of finish paint, correct this condition before application of paint. Do not paint over surfaces where moisture content exceeds that permitted in manufacturer's printed directions.
2. For Wood: Clean wood surfaces to be painted of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view, and dust off. Scrape and clean small, dry, seasoned knots and apply a thin coat of white shellac or other recommended knot sealer, before application of priming coat. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dried.
 - a. Prime, stain, or seal wood required to be job-painted immediately upon delivery to job. Prime edges, ends, faces, undersides, and backsides of such wood, including interior millwork and trim.
3. For Gypsum Wallboard Surfaces: Fill scratches, nicks and uneven areas with joint compound or spackle, and sand flush with the surface.
4. For Existing Surfaces (with the exception of metals): Clean thoroughly to remove loose, scaly, and other defective film. Fill holes and cracks. Remove gloss from painted surfaces by washing and sanding, and touch up bare spots with appropriate primer.

C. Materials

1. Mix and prepare painting materials in accordance with manufacturer's printed instructions.
2. Store materials not in actual use in tightly covered containers. Maintain containers used in storage, mixing and application of paint in clean conditions, free of foreign materials and residue.
3. Stir materials before application to produce a mixture of uniform density, and stir as required during the application of the materials. Do not stir surface film into the material. Remove the film and, if necessary, strain the material before using.

3.03 APPLICATION

- A. If color and finish is not designated, the Architect shall be notified for clarification.
- B. Apply paint evenly and smoothly without runs, sags, brush marks, laps, streaks, unfinished patches and other blemishes. The hiding shall be complete, and each coat shall be so applied to produce film of uniform thickness. Special attention shall be given to ensure that all surfaces including edges, corners, crevices, receive a film thickness equivalent to that of adjacent painted surfaces.
- C. Apply paint in accordance with manufacturer's directions. Use equipment and techniques best suited for substrate and type of material being applied.
- D. Brush out flow on each coat as required by the characteristics of the materials, or recommended by the manufacturer.
- E. Priming coat shall be of suitable type for each surface and compatible in each case with the finish paint.
- F. Allow each coat to dry thoroughly before applying next coat.
- G. The priming coat on concrete block shall be tinted to the approximate shade of the final coat. Suction spots or "hot-spots" in concrete, evident after the application of the first coating shall be touched-up before applying the second coat, to produce an even result in the finish coat.
- H. Properly prepare and touch-up scratches, abrasions and other disfigurements and remove foreign matter before proceeding with the following coat. Spot-priming or spot-coating shall be featheredged into adjacent coatings to produce a smooth and level surface.
- I. Final coats shall not be applied before other trades whose operations would be detrimental to finish painting have finished with their work in the areas to be painted.
- J. Fill nail holes with suitable filler.
- K. Finish recesses the same as adjoining rooms. Finish other surfaces the same as nearest or adjoining surfaces unless otherwise shown.
- L. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment and furniture with prime coat only, before final installation of equipment.
- M. Comply with VOC levels with proper ventilation as per manufacturer's specifications and MSDS.
- N. Do not paint over code-required labels, such as Underwriters Laboratories and Factory Mutual, and over equipment identification, performance rating, name, and nomenclature plates.
- O. Do not apply reprocessed paint to ferrous and galvanized metals, wood or metal doors and frames, floors and glass.

3.04 ADJUSTING AND CLEANING

- A. At the completion of work of other trades, touch-up and restore damaged and defaced painted surfaces.
 - 1. Costs for this touch-up painting shall be charged to the trade responsible for such damage and at no additional cost to the Owner.
 - 2. Notify the Contractor immediately upon such discovery.
- B. During the progress of the work, remove discarded paint materials, rubbish, cans and rags from the Project site at the end of each workday.
- C. Upon completion of painting work, clean window glass and other paint-spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using care not to scratch and otherwise damage finished surfaces.

3.05 PROTECTION

- A. Protect work finished under this Section and the work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct damage by cleaning, repairing or replacing, and repainting.
- B. Provide "Wet Paint" signs as required to protect newly painted surfaces. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.

3.06 PAINT SCHEDULES

- A. Prior to beginning work, the Architect will furnish reprocessed latex paint selected colors in manufacturer's standard color palette for surfaces to be painted.
- B. Provide the following INTERIOR PAINT SYSTEMS for the various substrates as indicated:
 - 1. Wood (Interior-Opaque)
 - a. 1 coat Acrylic Stain Blocking Multi-Purpose Primer
 - b. 2 coats Reprocessed Latex Paint
 - 2. Gypsum Board
 - a. 1 coat Reprocessed Latex Wall Primer
 - b. 2 coats Reprocessed Latex Paint
 - 3. Plaster
 - a. 1 coat Latex Wall Primer
 - b. 2 coats Reprocessed Latex Paint
 - 4. Concrete Block
 - a. 1 coat Reprocessed Latex Block Filler
 - b. 1 coat Reprocessed Latex Paint
 - 5. Masonry
 - a. 1 coat Reprocessed Latex Block Filler
 - b. 1 coat Reprocessed Latex Paint
- C. If substrate is not among those specified above, notify Architect for direction.
- D. Paint Color Key

PT-1: _____
Color:
Finish:
PT-2: _____
Color:
Finish:
PT-3: _____
Color:
Finish:
PT-4: _____
Color:
Finish:

END OF SECTION