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Sto Specification No. RC100 Guideline Specifications for Cleaning Wall Surfaces

Section No. 090170 Surface preparation for Sto reStore Level 1 or Level 2 projects

Note: Depending on the size of the area to be cleaned and the tenacity of dirt or other accumulation on the surface, the tools used for cleaning will vary. Guideline specifications below may apply to all or part of a cleaning project, depending on the nature of the surface contaminants. In all cases, Sto recommends testing cleaning solutions and techniques on inconspicuous small areas to evaluate the effectiveness of the materials and methods that are proposed for use and to verify that unintended damage or adverse effects are not produced. Where commercially available cleaning products are to be used, verify applicability of the product for its intended use with the cleaning product manufacturer. The materials and techniques described below may be used on painted or coated concrete, masonry, stucco or EIFS. All materials and techniques are not necessarily appropriate for all substrates.

Notes in italics, such as this one, are explanatory and intended to guide the design/construction professional and user in the proper selection and use of materials. This specification should be modified where necessary to accommodate individual project conditions.

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PART 1 GENERAL

1.1 Summary

- A. Provide cleaning of existing wall surface in preparation for resurfacing and/or recoating.

1.2 Related Documents

ASTM D 4258	Standard Practice for Surface Cleaning of Concrete for Coating
SSPC-SP 13/NACE 6	Surface Preparation of Concrete
ICRI No. 03732	Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays
Sto Corp.	StoTherm® EIFS Reference Guide: Repair and Maintenance
Sto Corp.	1.01 Stucco Repair and Maintenance

1.3 Materials – Cleaning Solutions

- A. General
 - 1. Mix and use commercially available cleaning solutions in accordance with the cleaning product manufacturer's instructions.
 - 2. Refer technical questions about specific commercial cleaning products to the cleaning product manufacturer.
 - 3. Use and dispose of cleaning solutions and rinse water in accordance with applicable local regulations.
 - 4. DO NOT USE solvent based cleaners (acetone, gasoline, ketones, mineral oils, or turpentine)

1.4 Mild Detergent Wash

- A. Solution of 1 – 2 cups tri-sodium-phosphate (TSP) or TSP substitute per gallon of warm water
- B. General Purpose Cleaner by Wind-lock Corp., www.wind-lock.com
- C. Wash Down™ by Demand Products, www.demandproducts.com
- D. EIFS Clean 'N Prep by PROSOCO, www.prosoco.com
- E. Other commercial general cleaners as recommended by the cleaning material manufacturer for the surface to be cleaned.

1.5 Efflorescence Removal

- A. Efflorescence and Scale Remover, by Demand Products
- B. Sentry Efflorescence and Scale Remover, by Wind-lock Corp.
- C. Other commercial efflorescence cleaners as recommended by the cleaning material manufacturer for the surface to be cleaned.

1.6 Algae and Mildew Removal

- A. Solution of ½ to 1 quart household bleach to 1 gallon of water (may be added to TSP detergent solution for general cleaning)
- B. Miracle Mildew Remover by Wind-lock Corp.
- C. Other commercial algae and mildew cleaners as recommended by the cleaning material manufacturer for the surface to be cleaned.

NOTE: Bleach is not required if algae or mildew are not present, but existing algae or mildew will recur if bleach solution is not used)

PART 2 Execution

2.1 General

- A. The techniques described in this section may be used on painted or coated concrete, stucco or EIFS surfaces. All techniques are not necessarily appropriate for all substrates.
- B. Test method and material in an inconspicuous area to verify techniques and materials to be used.
- C. Use the least aggressive means that produces effective results.
- D. Use methods in compliance with applicable local regulations.
- E. Protect adjacent construction, property and landscaping from overspray where cleaning solutions are used.
- F. Follow applicable regulations for personal protective equipment when performing cleaning.

2.2 Application of Cleaning Solutions

- A. Commercial cleaning products:
 - 1. Select the appropriate cleaning solution and apply in accordance with the cleaning solution manufacturers recommendations.
 - 2. Rinse thoroughly with clean water to remove all residue and surface contaminants.
- B. Generic mild detergent wash:
 - 1. Apply mild detergent solution to the wall area to be cleaned.
 - 2. Rinse thoroughly with clean water to remove all residue and surface contaminants.
- C. Generic algae and mildew removal:
 - 1. Apply algae and mildew removal solution and allow to soak for minimum 15 minutes. (Reapplication may be necessary for severe growth).
 - 2. Use hand-scrubbing technique to remove streaking or other localized growth.
 - 3. Rinse thoroughly using clean water to remove all residue and surface contaminants.

2.3 Hand-Scrubbing

- A. Use hand scrubbing technique for localized stubborn stains that are resistant to low pressure washing techniques or otherwise require special treatment.
- B. Use soft to medium bristled brush
- C. Avoid overly aggressive scrubbing which could damage the existing coatings.

NOTE: DO NOT USE stiff-bristled or wire brushes.

2.4 Pressure Washing (as means of cleaning existing coating)

- A. Use cool or warm water. DO NOT USE steam or high temperature methods when existing coatings are to remain in-place
- B. Use minimum 30 degree fan tip
- C. Determine distance from wall and pressure required to provide satisfactory results without damage to existing coatings or substrates based on test area.
 - 1. Use pressure in the range of 2500 psi to 3000 psi for coatings applied to solid substrates (concrete, masonry, and stucco), unless undesirable effects are produced. If damage to existing coating occurs, adjust pressure, distance of tip from wall, or fan tip angle to achieve satisfactory results.

NOTE: DO NOT USE high pressure on EIFS claddings. Limit pressure to 500 psi, maximum, when EIFS is the substrate.

- 2. Determine if architectural features are foam shapes to protect against accidental damage in cases where they are attached to solid substrates such as stucco, masonry or concrete. Limit pressure to 500 psi, maximum, for foam trim features.

2.5 Pressure Washing (as a means of removing existing coating layers)

- A. Determine pressure, fan tip angle and tip distance from wall as required to remove loose coatings or excess coating applications on solid substrates.
- B. Verify that the technique does not produce damage to the substrate and adjust as necessary.
- C. Dispose of rinse-water and waste in accordance with appropriate local regulations.

NOTE: A chemical paint stripper may be an option to improve efficiency in combination with pressure washing when existing coatings are to be removed. Consult with the paint stripper manufacturer for proper use and disposal of rinse-water and waste.

END OF SECTION

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