

Maintenance of Powder Coated Facades

No maintenance-free surface coating exists for the building industry. This includes products specially designed for those parts of the world where the climatic conditions put extreme strain to the exterior coating.

Correct maintenance will have a major impact in maintaining the decorative appearance, thus enhancing the lifetime of the coating. Each location should be handled separately, since the coating will be exposed to a variety of atmospheric conditions.

Periodical cleaning and routine maintenance

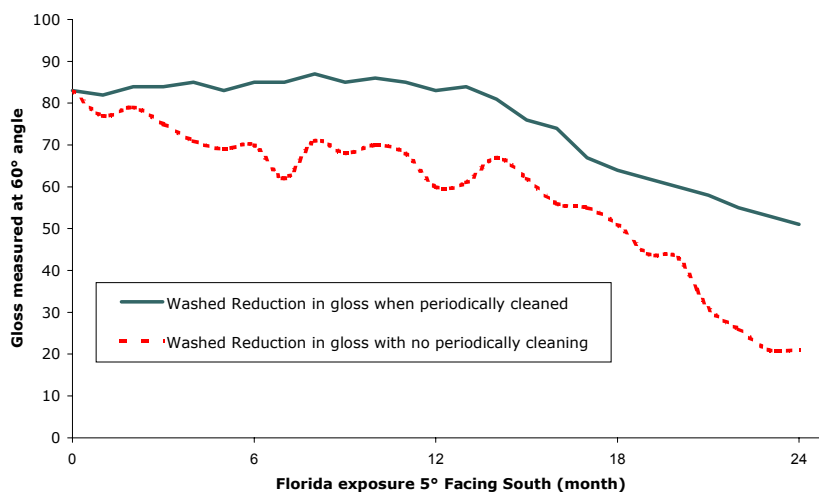
(Cleaning frequency)

Powder coatings used on the exterior:

Cleaning is used to remove dirt and/or stains in order to maintain the decorative impression of the coating. Should the coating be placed in close proximity to the sea, or highly polluted areas – man made or natural – aggressive stains may result on the coating surface and cause the gloss to fade. This may accelerate degradation through corrosion, resulting in reduced lifetime of the coating.

Cleaning is generally recommended at 6 monthly intervals, but in highly exposed areas the frequency should increase; dependent on the severity of end-use conditions. Ordinary dirt and stains can be removed using a household detergent, diluted with water. Cleaners should not contain abrasive materials or solvents in order to avoid adverse effects to the coating. Cleaning material should be a neutral detergent with a pH from 5 to 8.

Experiments show that the durability will be enhanced, (as shown right) where a powder coating has been exposed to Florida with and without periodic cleaning.



Powder coatings used on the interior, behind glass:

In our experience, we find that products used behind glass show no deterioration other than visual appearance being affected by dust, dirt and splashes. We recommend that periodic washing with a mild neutral detergent (pH 5 to 8) will maintain the surface in excellent condition. Mechanical damage may be repaired in accordance with our repair procedure contained in this document.

Renovation through rubbing and polishing

Coatings will generally change and it is the responsibility of the formulator to assure that such changes occur evenly and will not affect the uniform appearance, or the decorative impression of the construction. Nevertheless, after numerous years of exposure, there may be a need for a coating upgrade, even if periodical cleaning has been conducted. This is essential in those parts of the world where the climatic conditions put extreme strain to the coating. One effective way for upgrading is through rubbing/polishing.

Rubbing:

Prior to rubbing, ordinary dirt has to be removed using household detergent diluted with water (pH 5-8). Apply the rubbing compound on a lint-free cloth or tack and wipe liberally the coating by hand, or with a machine. Repeated wiping will enhance the result. Remove the paste with a clean cloth. This process will remove dirt, oil and grease. For further information, please consult the material supplier.

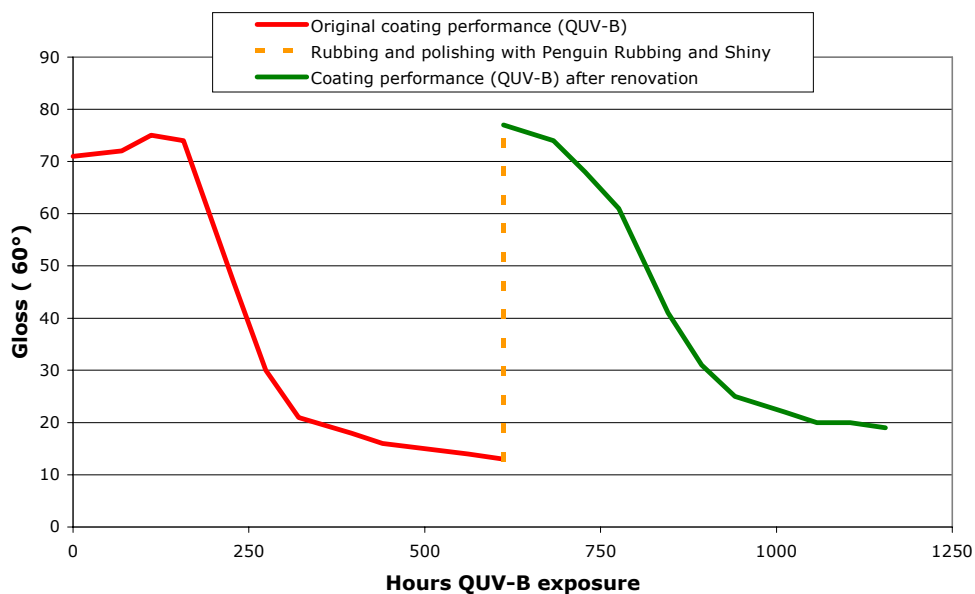
- A recommended rubbing compound is: Penguin Rubbing, Jotun Paint

Polishing

It is advised to polish the coating after rubbing to further raise the gloss and enhance the decorative appearance. Apply the polishing compound on a lint-free cloth or tack and wipe liberally the coating by hand or with a machine. End the process by wiping with a dry, clean cloth. For further information, please consult the material supplier.

- A recommended polishing compound is: Penguin Shiny, Jotun Paint

Degradation through weathering of an opaque coating generally occurs on the outer layer. Laboratory testing has shown that correct renovation through rubbing and polishing may virtually regain the coating properties since the degraded material will be removed. See graph below:



Recommended repair procedures of the coating

Polyester powder coatings intended for façade use have shown excellent corrosion protective properties when coated correctly (as advised in Jotun Powder Coatings Technical Information; "Correct Coating of Powder Coated Building Facades" MTI 96-62). However, should the coating be partly damaged, this may affect the overall performance and should be repaired by using any of the following methods:

Re-coating with Wet Paint:

Surface preparation:

Correct surface preparation is necessary before applying an organic coating, either a primer or a top coat to assure optimum adhesion and corrosion protective properties:

1. All surfaces should be free of dirt, oil, grease, wax and other foreign matter. If necessary, clean the surface with a neutral cleaner (pH 5 to 8)
2. Areas or spots damaged down to bare metal should be grinded or sanded before application of a primer. Ensure smooth feathering of the powder coating edges.
3. The damaged area with intact pre-treatment should be rubbed down by careful sanding without damaging the pre-treatment
4. Dampen a lint-free cloth or tack with Xylene and wipe liberally to clean the area to be repainted.

When repairing damaged of the substrate where the substrate is exposed, there is a need for a primer to be applied on the exposed metal. If the metal is not exposed i.e. the pre-treatment is intact, a top coat may be applied directly.

- Recommended type of primers are: Penguard HB, Jotun Paints
- Recommended types of repair coating are: Hardtop AS, Jotun Paints
Hardtop HB, Jotun Paints
New Weatherguard, Jotun Paints
Correx, Jotun Paints

The preferred material will vary dependent on the climatic conditions straining the coating, and compliance with local regulations with respect to e.g. emission of solvents. Please consult your local Jotun Paint supplier for more details.

Special considerations

Metallic shades

As metallic shades are produced with mica or metallic flakes, special care must not only be taken in their application, but also in their maintenance. For routine maintenance we recommend periodic washing with a mild detergent with pH between 5 and 8. For repair/renovation by wet coating, extreme care must be taken and we suggest you contact Jotun Powder Coatings prior to work being done. Repair/renovation with rubbing/polishing will result in discolouration and should not be used.

Matt shades

For routine maintenance we recommend periodical washing with a mild detergent with a pH between 5 and 8. If repair/renovation is required rubbing/polishing may be used although lab tests have shown the gloss level of original coating will be effected. Uneven application may result in uneven appearance of gloss.

Faded colours

When repair/renovation will no longer bring the coating to an acceptable level – re coating will be required. We suggest your local JPC representative be contacted for remedial action required.