

# Coating Repair and Touch-Up Procedures for Glass Flake Coatings

Technical Support Procedure TP-9203-18



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## Introduction

The repair and touch-up of Glass Flake Coatings after any form of damage has occurred to painted parts during their installation, prior to their entry into service, and during their service life is vitally important. The repair and touch-up process can be classified into three major sections:

1. Inspection of the Coating and Identification of Damaged Areas
2. Evaluation of Possible Damage to the Coating
3. Coating Repair and Touch-Up

## Inspection

Begin with removing any possible surface contaminations using suitable methods such as wiping the surface with a cloth, washing the surface, using compressed air to blast the surface and drying the surface. It is important to remove any potential contaminants from the surface as they may make it harder to identify areas that may have been damaged. Once you have cleaned and dried the surface, completely inspect the painted parts.

Be sure to note any areas that seem to have been damaged such as surface and deep scratches, blisters, detached coating layers or complications caused by welding, cutting, milling, machining, etc. Also check for any potential damage caused by contact with chemicals and grease.

Note all damaged areas with complete details such as the depth and extend of damages, as well as the dimensions of damaged sections. Identify, mark and report on all damaged sections.

## Evaluation of Possible Damage to the Coating

Identify the type and extend of damages observed during your inspection by using the following classifications:

1. Mechanical Damage Caused by Transport and Movement of Painted Parts
  - ❖ Damage caused by collision or impact with hard objects
  - ❖ Damage caused by abrasion against hard objects
  - ❖ Scratches or other potential vulnerable areas that can be penetrated by corrosive agents such as moisture and water. These areas are provided with reduced protection against corrosion relative to undamaged parts, and corrosion will first break through the coating in these areas.
  - ❖ During this stage, also evaluate any other areas that may pose threats to the protective system. These include sharp edges or areas that may have been missed during coating application, as well as welding lines, etc.)
  - ❖ Areas that may have lower than required film thicknesses
2. Damage Caused by Welding, Cutting, Milling, and ...
3. Damage to the Coating Caused by Exposure to Chemicals

Evaluate and report on any of the above-mentioned damages to the depth and extent of damage to the coating, or to the depth of the damage in terms of microns. Include the dimensions of the damage according to its coordinates on the section of piece being inspected.

## Coating Repair and Touch-Up

### Mechanical Damage Caused by Transport and Movement of Painted Parts

In the event of mechanical damage to the coating, repair the damaged areas in accordance with the Touch-Up and Repair instructions and the type of damage that is being repaired.

#### a) Deep Damage (Damage of Coating Film to the Surface of the Metal surface causing rusting and corrosion)

If the damage caused to the coating is deep enough to reach the metal surface and cause rusting, use a wire brush and sander/sandpaper to remove the rust. Then use compressed air to blast the surface. Once the surface has been cleaned, use a brush or spray system to reapply the coating according to its technical specifications and operating instructions.

#### b) Surface Damage

1. Power wash and clean the painted surface with fresh water at a maximum pressure of 120 PSI.
2. Dry the surface immediately after washing to prevent the formation of sediment or contaminants that may have been present in the water.
3. Inspect the painted surface carefully to ensure that it is fully cleaned and dried.
4. Use sandpaper to remove any remaining contamination left on the surface as well as to smooth any areas where you observe abrasion. Continue this until you have removed all contaminants and you are left with a smooth, even surface. Please note that use of sandpaper will greatly improve evenness of the film, as well as adhesion between layers of paint in the repaired area.
5. Use compressed air to blast the surface and remove any remaining materials and contaminants from step 4.
6. Once the surface is ready to be painted, make sure that your application equipment is ready for use. Ensure that you are completely familiar with the product's TDS prior to coating application. It is absolutely necessary to observe the mixing ratio (required mixing ratio between paint components), as well as the product's recommended film thickness. In all two-component coatings, the product packaging matches the recommended mixing ratio (Can to Can ratio). However, if you require a smaller amount of touch-up paint, use an accurate scale (for example, for RTB-1275-R, combine 1 Kg of component A and 100 gr of component B).
7. Look through the "Mixing Instructions" part of the TDS. After you have thoroughly mixed component A to get a uniform, add component B and mix for the stated time in the TDS. Once the two components have been mixed together, the product will require a pre-reaction time prior to application. The pre-reaction time is typically 5-10 minutes.
8. After the components have been combined, a chemical reaction will begin between the paint (component A) and hardener (component B). This is how the coating cures and hardens, and the time period that a chemical reaction is occurring between the components is known as the product's Pot Life. Once the Pot Life ends, the product will harden, making it impossible to apply the coating. Therefore, it is very important to observe a product's Pot Life (For example, RTB-1275-R's Pot Life is 2 hours at 25°C. Once the Pot Life expires, you should no longer use the product).
9. Apply the coating according to the recommended film thickness range laid out in the product's TDS using a brush or spray system.

10. During coating application, after application and before the coating film dries, do not let any dust, dirt and environmental contamination settle on the painted surface.

*c) Damage Caused by Welding, Cutting, Milling...*

In these cases, damages to the coating are typically deep and they usually extend to the depth of the primer layer. Use electric and mechanical tools such as a scraper, wire brush or sander to completely remove any rust and remnants of burned paint to a 20 cm radius. Then use compressed air to blast the surface to clean away any dust or contaminants. Once the surface has been cleaned, use a brush or spray system to reapply the coating according to its technical specifications and operating instructions.

*d) Damages to the Coating Caused by Exposure to Chemicals*

In these cases, the damage caused to the coating may be deep damage or surface damage. Use a wire brush or sander/sandpaper to remove the effected areas. Once all damaged areas have been removed, use a cleaning solvent to clean the area exposed to chemicals. Use a wide radius around the impacted areas to ensure that all chemicals, grease and other contaminants are removed and that the surface is clean.

Once the previous steps are complete, check film thicknesses and reapply touch-up paint as needed. For deep damage, once the surface has been completely cleaned and dried, use a wire brush to remove the paint all the way to the substrate. Then use compressed air to blast the surface to clean away any dust or contaminants. Once the surface has been cleaned, use a brush or spray system to reapply the coating according to its technical specifications and operating instructions.

*e) Other Cases*

Repair the coating system based on the type and extent of damage present. Please do not hesitate to contact our Technical Support Team via email at [support@ronass.com](mailto:support@ronass.com) should you require assistance or have questions.

**Note**

For coatings that require heating to complete their curing process, it is recommended to conduct inspection and repair processes prior to Force Drying operations.