



## 1. Description

This procedure describes methods for removing paint finishes in preparation for refinishing. Inspection and evaluation requirements are also included.



## 2. Purpose

The purpose of this procedure is to provide industry-accepted requirements for performing high-quality finish removal. This procedure is intended for use by professionals who are qualified through training and experience.



## 3. Referenced Documents

The following documents are considered part of this procedure by reference.

### 3.1 Procedures

HM01 Hazardous Materials  
PS01 Personnel Safety  
RF01P Surface Preparation  
RF01S Surface Preparation  
RF11 Masking

### 3.2 Other Information

Equipment-specific information  
Product-specific information  
Vehicle-specific repair information



## 4. Equipment And Material Requirements

### 4.1 Equipment

The use of this equipment is included in this procedure:

- media blasting system
- vacuum sanding system
- dual-action (DA) sander

### 4.2 Finish Removal Materials

The use of these materials is included in this procedure:

- abrasives
- blasting media
- chemical stripping materials
- heavy-duty masking materials



## 5. Damage Analysis

### 5.1 Finish Removal

Plan to remove a finish if any of the following conditions exist in the repair area:

- excessive film thickness
- cracking or checking
- blistering
- peeling
- unrepairable environmental damage



## 6. Personnel Safety

### 6.1 General Safety

General safety information is in **PS01**.

### 6.2 Safety When Machine Sanding

To prevent injury when machine sanding:

- Start and stop sanders on the panel being sanded.
- Wear protective clothing, goggles, gloves, and a NIOSH-approved particle respirator or dust mask.
- Work in a well-ventilated and well-lighted area.
- Direct the dust away from the face and toward the floor.
- Be aware of the air hose or electrical cord location at all times.
- Do not stand in water.
- Use vacuum sanding equipment, when available.

### 6.3 Safety With Chemical Paint Removers

To prevent injury when using chemical paint removers:

- Wear protective clothing, goggles, rubber gloves, and a vapor respirator. Most chemical paint removers contain strong alkalis.
- Follow the product maker's recommendations.
- Do not eat, drink, or smoke in the work area.
- Do not store flammable materials near heat or ignition sources. Some paint removers are flammable.
- Work in a well-ventilated area.
- Do not use thinner, gasoline, or other solvents to clean hands, etc.
- Have water available in case of skin contact.

### 6.4 Safety When Media Blasting

To prevent injury when media blasting:

- Follow the equipment maker's guidelines.
- Wear protective clothing, helmet, gloves, and the proper respiratory protection for the type of media being used.
- Use care in directing the blast.
- Work in a well-ventilated and well-lighted area.

Note: A properly fitted, positive-pressure, fresh air-supplied respirator with a hood may be required by some government agencies when using silica sand as a media.



## 7. Environmental Safety

### 7.1 Hazardous Materials

Hazardous material safety information is in **HM01**.

### 7.2 Finish-Removal Materials

These finish-removal materials may be considered hazardous waste and should be disposed of following environmental regulations:

- blasting media that is not recycled
- chemical paint remover materials
- removed paints and other coating materials
- any cloths that contain finishing materials or chemicals
- chemical paint removers, dust, and sludge



## 8. Vehicle Protection

### 8.1 Adjacent Areas

Protect adjacent areas while removing a finish. See **RF11**.

### 8.2 Machine Sanding

To protect the vehicle when machine sanding:

- Keep the sander moving on the surface.
- Keep the sander flat on large flat surfaces.
- Remove dirt caught between the finish and the sandpaper.
- Do not machine sand style lines or panel edges.
- Protect or remove trim, decals, glass, and emblems. See **RF11**.
- Do not remove body filler.
- Avoid removing any zinc coating.
- Use vacuum sanding equipment, when available.
- Immediately protect bare metal parts from flash corrosion. See **RF01S**.

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## 8. Vehicle Protection (cont'd)

### 8.3 Chemical Paint Removers

To protect the vehicle when using chemical paint removers:

- Follow the product maker's recommendations.
- Do not apply to plastic parts unless the product is designed for that specific use.
- Use heavy-duty masking materials, such as heavy tape and plastic sheeting. See **RF11**.
- Do not allow chemicals to contact surfaces outside the repair area.
- Cover panel gaps and vents to prevent material entry.
- Immediately protect bare metal parts from flash corrosion. See **RF01S**.

### 8.4 Blasting

To protect the vehicle when media blasting:

- Follow the equipment maker's recommendations for air velocity, media type, tip-to-surface angles, and blasting distance.
- Use heavy-duty masking materials, such as heavy tape and plastic sheeting. See **RF11**.
- Use caution to avoid severely pitting or warping metal.
- Protect the engine, fuel, and electrical systems, and the interior from dust damage.
- Immediately protect bare metal parts from flash corrosion. See **RF01S**.



## 9. Repair Procedure

Determine the proper method of finish removal, considering the extent of the damage and the type and condition of the finish. Some vehicle makers recommend against the use of chemicals for finish removal.

### 9.1 Finish Removal By Sanding

To remove a finish by sanding:

- 1. Wash the repair area with soap and water. Rinse and wipe dry.
- 2. Clean the repair area with the proper wax and grease remover, as recommended by the paint maker.
- 3. Protect areas where paint is not to be removed.
- 4. Remove most of the finish with a DA sander using an open-coat coarse (36–80) grit sandpaper.
- 5. Sand with a DA sander, using an open-coat medium (80–120) grit sandpaper. Avoid heat buildup, gouging, scarring, or polishing the metal.
- 6. Remove sandscratches using an open-coat fine (120–180) grit sandpaper.
- 7. Clean the substrate.
- 8. Protect bare metal surfaces. Follow the paint maker's recommendations.
- 9. Continue the refinish process.

### 9.2 Finish Removal With Chemicals

For any plastic part being repaired, determine if chemical paint removal is appropriate. Select a chemical paint remover designed for the type of plastic being repaired. Test a hidden area.

To chemically remove a finish:

- 1. Wash the repair area with soap and water. Rinse and wipe dry.
- 2. Clean the repair area with the proper wax and grease remover, as recommended by the paint or chemical maker.
- 3. Protect areas where paint is not to be removed.
- 4. Remove all moldings and emblems from the repair area.
- 5. Brush on a heavy coat of chemical remover in one direction only. Work in small areas and allow time for the finish to soften. Follow the product maker's recommendations.
- 6. Remove the softened finish before it hardens.
- 7. Repeat as necessary until the finish is removed.
- 8. Properly collect and dispose of the residue.
- 9. Neutralize the chemicals, following the product maker's recommendations.
- 10. Clean the substrate.
- 11. Thoroughly sand the substrate.
- 12. Protect bare metal surfaces. Follow the paint maker's recommendations.
- 13. Continue the refinish process.

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## 9. Repair Procedure (cont'd)

### 9.3 Finish Removal By Blasting

To remove a finish by blasting:

- 1. Wash the repair area with soap and water. Rinse and wipe dry.
- 2. Clean the repair area with the proper wax and grease remover, as recommended by the paint maker.
- 3. Protect areas where paint is not to be removed.
- 4. Set up the equipment following the maker's recommendations. Use the correct tip angles, and avoid pitting or warping the metal.
- 5. Remove the finish as necessary.
- 6. Properly collect and dispose of the residue.
- 7. Clean the substrate.
- 8. Immediately protect bare metal surfaces. Follow the paint maker's recommendations.
- 9. Continue the refinish process.



## 10. Use Of Recycled (Salvage) Parts

Does not apply.



## 11. Inspection And Testing

### 11.1 Surface Inspection

Inspect the repair area for these conditions:

- incomplete finish removal
- residue from chemical paint removal
- flash corrosion
- warpage
- visible damage
- rust pits

Correct any defects.