

# Refinishing Procedures

## 1. Featheredging (polishing damaged areas)

- 1. Damage to metal surface

- Sand the damaged area flat and smooth with a double action sander and #60 or #80 disc paper.
- Sand the boundary between the metal surface and undercoat with a double action sander and #180 or #280 disc paper. Try to sand a larger area than the damage.

NOTE:

- Make sure there is no height difference between the metal surface and undercoat.
- If a double action sander is not available, use a rubber block and wrap sandpaper around it to sand the surface.

**▲ WARNING** To prevent eye injury, wear goggles or safety glasses whenever sanding, cutting or grinding.

-2. Damage to Undercoat  
Intermediate coat  
Top coat  
Paint coat on replacement parts

Sand the damaged surface flat and smooth with a double action sander and #280 or #320 paper.

NOTE:

- If a double action sander is not available, use a rubber pad and wet or dry sand the surface with #280, #320, #400 or #600 sandpaper.
- After sanding, check that the surface is flat and smooth.
- Perform the operations under Item 1-1 for the areas where parts are welded to the body.

## 2. Preparation of metal surface.

Remove all corrosion from the damaged area using a #180 or #280 paper.

## 3. Air Blowing/Degreasing

Air blow the sanded area, then degrease with a wax and grease remover (for USA usage-Dupont 38125 Enamel Reducer).

**▲ WARNING**

- Do not use high air pressure: Use only an approved, 210 kPa (2.1 kgf/cm<sup>2</sup>, 30psi) air nozzle.
- Wear goggles or safety glasses to prevent eye injury.

## 4. Treatment of metal surface

- Brush or spray a solution of chrome phosphate or washer primer on the exposed metal surface.
- Use the following materials to treat the metal surface:
  - Metal conditioner (kamsai Paint) (for USA usage-Dupont 2415 Kwik-Prep TM)
  - ACP agent (Nippon Paint)
  - Precoat (Isam Paint) (for USA usage-Dupont 6155/6165 Vari Prim Self-Etching Primer TM)

NOTE:

- Follow the manufacturer's instructions.
- Treat the metal surface, as much as possible, to provide a better bonding surface for the subsequent paint.

## 5. Application of Filler

Drying  
Sanding

- Small cracks or pinholes in the sheet metal should be repaired with a filler and sanded flat and smooth.

NOTE:

- Mix the putty with the hardener in the correct ratio.
- Follow the filler manufacturer's instructions.

(cont'd)

# Paint

## Refinishing Procedures (cont'd)

**⚠ WARNING** Body parts being dried with an industrial dryer can get hot enough to cause injury. Do not touch parts being dried.

- Allow the filler to air dry for about 5-6 minutes, then force dry with an infrared lamp.

NOTE: Keep the lamp 40-50 cm (16-20 in) from the filler while drying.

- Stop drying the filler if a white mark appears when the surface is scratched with your nail. Wet or dry sand the surface flat and smooth with a #280 or #320 paper.

### 6. Air Blowing/Degreasing

Air blow the surface to be repaired, then degrease with a wax and grease remover (for USA usage-DuPont 38125 Enamel Reducer).

NOTE: Also clean and degrease surfaces where masking tape will be attached.

### 7. Masking

Mask the areas surrounding the damage to prevent overspray from the primer.

### 8. Application and Drying of Primer/Drying

**⚠ WARNING**

- **Ventilate when spraying paint. Most paint contains substances that are harmful if inhaled or swallowed. Read the paint label before opening the paint container.**
- **Avoid contact with skin. Wear an approved respirator, gloves, eye protection and appropriate clothing when painting.**
- **Paint is flammable. Store it in a safe place, and keep it away from sparks, flames or cigarettes.**
- Spray the primer over the filler and surface (use epoxy or urethane 2-part primer).  
Spray : 2-3 coats.

- Use the following materials:
  - 615S Primer Surfacer (DuPont)
  - Primer Surfacer EP (Akzo)
  - NPS735 Urethane Primer Surfacer (R-M)

- Let the primer air dry for 5-10 minutes, then force dry with a infrared lamp.

NOTE: Keep the dryer 40-50 cm (16-20 in) from the surface.

### 9. Polishing Undercoat

- Remove the masking paper and tape.
- Check that the undercoat has dried thoroughly, then dry or wet sand the surface with a #280 or #320 paper.

NOTE:

- Use a rubber block and sand flat and smooth.
- Sand the entire surface to be refinished.

### 10. Air Blowing/Degreasing

**⚠ WARNING**

- **Do not use high air pressure; use only an approved, 210 kPa (2.1 kgf/cm<sup>2</sup>, 30 psi) air nozzle.**
- **Wear goggles or safety glasses to prevent eye injury.**

Air blow all the surfaces, then degrease with wax and grease remover (for USA usage-DuPont 38125 Enamel Reducer).

NOTE: Also degrease the surfaces where masking tape will be attached.

### 11. Masking

Mask the undamaged areas surrounding the damage to prevent overspray from primer surfacer (undercoat).

NOTE: Use masking tape and paper to mask the body. A vinyl cover may also be used to effectively mask the body.

## 12. Application of Intermediate Coat

### ▲ WARNING

- **Ventilate when spraying paint. Most paint contains substances that are harmful if inhaled or swallowed. Read the paint label before opening the paint container.**
- **Avoid contact with skin. Wear an approved respirator, gloves, eye protection and appropriate clothing when painting.**
- **Paint is flammable. Store it in a safe place, and keep it away from sparks, flames or cigarettes.**
- Use the same color paint as the top coat. Spray it over the surface until the undercoat (primer surface) is fully covered.
- Spray the paint slightly thicker than normal to allow for loss during subsequent polishing.
- Super ponacle II (R-M)
- Super Centri (DuPont)
- Auto cryl (Akzo)

## 13. Polishing of Intermediate Coat

- Check that the paint coat has dried thoroughly, then dry or wet sand the surface with a #600 and #800 paper.

NOTE: Use a rubber block and sand flat and smooth, being careful not to expose the undercoat.

### Polishing of Top Coat (if damaged):

Use the same technique described above.

## 14. Air Blowing/Degreasing

### ▲ WARNING

- **Do not use high air pressure; use only an approved, 210 kPa (2.1 kgf/cm<sup>2</sup>, 30 psi) air nozzle.**
- **Wear goggles or safety glasses to prevent eye injury.**
- Air blow the entire surface, then degrease with wax and grease remover (for USA usage-Dupont 38125 EnamelReducer).
- For shading or spot painting, polish the area with a polishing compound. Sand with a #2000 paper to give a better bonding surface for the subsequent paint.

## 15. Masking

- Remove all existing masking paper, then mask with new paper.
- Use a heat-resistant masking tape (SCOTCH TAPE) where tape is attached directly to the body.
- Use brown paper or masking roll paper to cover.

### NOTE:

- Mask the area surrounding the damage sufficiently to prevent overspray. It is also a good practice to use a vinyl cover to protect other areas.
- Protect resin parts with aluminum foil under the brown paper or masking paper to prevent damage due to heat during baking.

## 16. Application of Top Coat/Drying

- Prior to putting the car in the painting booth, thoroughly clean the interior and spray water over the floor. Be careful about blowing dust and dirt.

### ▲ WARNING

- **Do not use high air pressure; use only an approved, 210 kPa (2.1 kgf/cm<sup>2</sup>, 30 psi) air nozzle.**
- **Wear goggles or safety glasses to prevent eye injury.**
- Air blow and degrease the surface before spraying the paint. Also clean the surface with a tack cloth.

### ▲ WARNING

- **Ventilate when spraying paint. Most paint contains substances that are harmful if inhaled or swallowed. Read the paint label before opening the paint container.**
- **Avoid contact with skin. Wear an approved respirator, gloves, eye protection and appropriate clothing when painting.**
- **Paint is flammable. Store it in a safe place, and keep it away from sparks, flames or cigarettes.**
- Spray color-matched top coat over the prepared surface. Apply 2-3 coats in two directions until the intermediate coat is fully covered.

NOTE: For application of the top coat, refer to step 12 "Application of Intermediate Coat."

Solid color: Color enamel + Color clear coat

Metallic color: Metallic enamel + Clear coat

Pearl color: Pearl enamel + Clear coat

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# Paint

## Refinishing Procedures (cont'd)

**⚠ WARNING** Body parts being dried with an industrial dryer can get hot enough to cause injury. Do not touch parts being dried.

- After spraying, allow the paint to settle for about 10 minutes, then force dry with an infrared lamp.

NOTE: Follow the paint manufacturer's instructions.

### 17. Polishing/Buffering

- Let the paint dry gradually, then polish the surface carefully using a polishing compound and sponge buff.
- To remove lint or dirt, wet sand the surface with #2000 paper or finer first, then polish with compound.

NOTE: Polish all roughness caused by sanding thoroughly. To do this, first polish with very fine compound, then with ultra fine compound.

- After polishing, remove the masking paper and tape, then wash the entire vehicle thoroughly.