

# “Coating Defect”

Included in “Development of PREGIO-HCPS (High-brightness Chemical Plating System)” P. 38

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## 1 Representative examples of coating defects

There are various defects involved with paint processes. I would like to briefly explain the description of each defect for those included in this report as well as representative ones.

### 1. Whitening

Defect in which the coating film surface becomes cloudy and loses gloss in the drying process as if it has been covered with dew.

### 2. Yellowing

Defect in which the surface finish has pale yellow to brown discoloration instead of the original paint color.

### 3. Whitening unique to silver mirror plating

Whitening defect that is unique to silver mirror plating

### 4. Peeling, exfoliation, and adherence defect

Symptom in which the coating film is peeled due to contamination, etc. This occurs on material surfaces or between layers (Fig. 1).

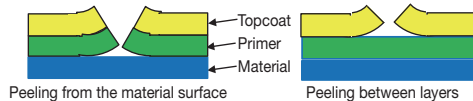


Fig. 1 Peeling

### 5. Foaming

Defect in which small bubbles and holes are formed in the course of coating film curing and drying (Fig. 2).

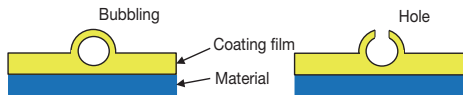


Fig. 2 Foaming

### 6. Loss of gloss

Defect in which the coating film’s natural gloss is not found after drying. Defect in which the surface loses gloss within a short period of time.

### 7. Fracturing, cracking

Defect in which there is a tear in the coating film. This includes defects in which the crack reaches the material, defects in which the crack does not reach the material,

defects in which shallow cracks cross each other on the coating film surface, etc.

### 8. Discoloration

Defect in which one or a combination of the brightness, hue, or saturation of the coating film is changed to make another color.

### 9. Stain

Defect in which there are small spots or unevenness of the color on the coating film surface.

### 10. Dripping

When painting a vertical surface or angled surface, the paint runs down, making some areas have thick coating film and resulting in an uneven surface (Fig. 3).

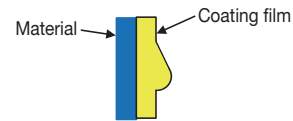


Fig. 3 Dripping

### 11. Transparency

Defect in which the material or primer surface can be seen through the coating film, resulting in a different color than the coating film’s original color.

### 12. Uneven color

Defect in which the coating film’s color is partially uneven.

### 13. Seeding

Defect in which foreign substances adhere to the finish, creating protrusions. This is caused by foreign substances being mixed into stored paint or adhering to the material surface (Fig. 4).



Fig. 4 Seeding

### 14. Cissing

Defect in which paint does not adhere evenly, partially creating dips in the coating film. This is caused by uneven surface tensions between the primer surface and the paint, etc. (Fig. 5).

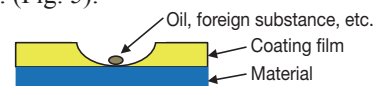


Fig. 5 Cissing