

## DSS-A.03.01 | Assembly / Internal Conditions

# Mirror Edge Blackening (back-coating corrosion)

Assembly / back-coated products - typically out of in-place scope

### Diagnosis summary

Localized darkening/blackening that initiates at the perimeter of a silvered mirror and advances inward beneath the protective paint (back-coating). The phenomenon results from moisture/chemical ingress at edges or penetrations, leading to corrosion of the reflective metal layer. Appearance is behind the glass substrate (back side), not on the exposed viewing face.

### Field identification cues

- Surface-catch class (MSRT):
- On the exposed viewing face, record SC-0 (no relief). Perform one light, non-marring pass only; MSRT supports classification and must not abrade the surface.
- Reveal / lighting / geometry:
- Evaluate clean & dry after a Non-Invasive Reveal; use raking light and assess at 12 / 36 / 72 in at normal incidence and through an oblique sweep ~60°-120°.

### Classification, severity and scope

- CAT-5 (Out of Scope for In-Place Restoration): If the cue is confirmed as back-coating corrosion (behind the glass), classify CAT-5 by location/condition and refer to replacement or mirror-fabrication.
- If any additional face-side damage (scratches, pits, coating anomalies) is present on the exposed surface, classify that face-side condition separately under the appropriate M/Co/Ch family by CAT; do not.

### Distinguishing criteria

- vs. Front-face residues/films (R-series): Residues change with reveal and may show front-face MSRT cues; mirror blackening does not respond to reveal and remains under-glass.
- vs.
- vs. IGU between-pane defects: Fixed parallax within an IGU cavity indicates between-pane location; treat as CAT-5 similarly (out of in-place scope).

### Documentation and inspection

- Photo set (VIS):
- 12 / 36 / 72 in; normal + oblique; include raking frames.
- One edge context frame showing the advancing black band from the perimeter or cutout; one macro confirming the cue sits behind the glass (unchanged by reveal; SC-0 on face).

Safety / repairability boundary: Complete only the non-invasive reveal and inspection steps authorized by the controlling VIS guidance. Classification does not authorize restoration, establish acceptance, or override stop-work, coating, crack, integrity, access, chemical, fall-protection, or project-specific requirements.

Full DSS publication: use the catalog download. Web specification:

<https://a7df714357.nxcli.io/learning-center/resource-center/damage-specification-standards/dss-a-03-01-mirror-edge-blackening-back-coating-corrosion/>