

DSS-A.03.02 | Assembly / Internal Conditions

Spot Corrosion Behind Mirror (localized back-coating failure)

Assembly / back-coated products - typically CAT-5 by location; out of in-place scope

Diagnosis summary

Discrete under-glass spots (darkening, brown/black dots, or small blooms) caused by localized corrosion of the reflective layer behind the glass where the protective back-paint/edge seal has been compromised (pinholes, scratches, clip pressure, moisture/chemical ingress). The phenomenon is behind the viewing surface (back-coating system), not on the exposed face. VIS acceptance pertains to the exposed face;

Field identification cues

- Surface-catch class (MSRT):
- On the exposed viewing face, record SC-0 (no relief). One light, non-marring pass only to support classification; do not abrade. Prefer a polymer stylus if a face functional coat is suspected.
- Reveal / lighting / geometry:
- Evaluate clean & dry after Non-Invasive Reveal; use raking light at 12 / 36 / 72 in with normal incidence + oblique sweep (~60°-120°) per VIS. Back-side spots remain unchanged by reveal.

Classification, severity and scope

- CAT-5 (Out of scope for in-place restoration): When confirmed as back-coating spot corrosion, classify CAT-5 by location/condition and refer to fabricator/replace per project protocol.
- If separate face-side damage exists (scratches, films, coating rubs), classify that condition independently under M/Co/R families by CAT; do not let the back-side condition set face acceptance.

Distinguishing criteria

- vs. Front-face specks/overspray (R.02/R.06): Face residues respond to Non-Invasive Reveal and may show MSRT cues; back-side spots do not.
- vs. Mirror edge blackening (A.03.01): Edge blackening is a perimeter creep band; A.03.02 presents as isolated spots/clusters, often at back-paint scratches or clip points.
- vs. IGU between-pane artifacts: IGU cavity features show fixed parallax between panes (#2/#3); mirror corrosion is behind the substrate.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique, raking; include a macro showing spot edges/under-glass character and a context frame showing proximity to.
- MSRT result (face): SC-0; one pass; polymer stylus preferred if a face coat is present/suspected.
- Forms: Pane ID; location; reveal status; lighting/time; geometry checklist; note "back-coating spot corrosion (behind glass)"; attach photos.

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-03-02-spot-corrosion-behind-mirror-localized-back-coating-failure/>