

DSS-Co.04.03 | Coating Anomalies

Back-Paint Adhesion Loss Islands

Back-paint/ceramic-frit opacity system anomaly - localized loss of adhesion or cohesive failure within the back-coating forming “islands,” blisters, or lift at edges; reads through glass from viewing side; typically SC-0 at viewing face; confirm system build and coated face before attribution

Diagnosis summary

Back-paint adhesion loss islands are localized detachments (adhesive or cohesive) within an opaque/semi-opaque back-coating on the non-viewable side of glass (e.g., spandrel paint, back-coated vision bands, ceramic frit overcoats). From the viewing face they present as duller/darker or brighter windows, contour-edged islands, or blisters;

Field identification cues

- Surface-catch class (MSRT)
- At the viewing (glass) surface: SC-0 (planar defect behind the glass).
- Do not perform MSRT on the back-coating face in situ. MSRT supports classification only on the viewing surface.
- Visual signature

Classification, severity and scope

- Assign CAT by visibility at acceptance geometry and areal extent/progression (from the viewing side). Depth values below are apparent optical, not substrate relief.
- CAT-1 (Benign / non-relief): Few, small islands/blisters (<5 mm), legible mainly at oblique/raking; SC-0 viewing surface; no edge propagation.
- CAT-2 (Light): Scattered islands visible at standard distance; cumulative affected area $\leq 0.5\%$ of the field; SC-0 viewing surface.
- CAT-3 (Moderate): Clusters/bands or edge-propagating islands affecting perceived uniformity $> 0.5\%$ or along critical sightlines; localized clear voids may be present; SC-0 viewing surface.
- Escalation / reclassify: If front-face chemical rings/runs coexist → also classify Ch family; if front-face grooves/pits present → M/Th families.

Distinguishing criteria

- vs. Pinholes/holidays (Co.04.02): Pinholes are point-voids with sharp, tiny dots; adhesion-loss islands are larger lobed patches or blisters with contoured boundaries.
- vs. Spandrel mottle (Co.04.01): Mottle is cloud-like density variation without discrete boundaries/blister domes.
- vs. Front-face chemistry (Ch): Chemical attack shows rings/runs/etch at the viewing surface and can yield SC-1/2; Co.04.03 remains SC-0 on the viewing face.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; raking macros across island edges/blisters; back-lit frames for clear voids; document edge origin if present.
- Face/System ID. Confirm back-paint/frit face and system build (submittals/shop drawings). Note adjacent gaskets/rails/adhesives that may contribute.
- MSRT (viewing surface only). Record SC-0 to distinguish from front-face mechanical/chemical attack.

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-co-04-03-back-paint-adhesion-loss-islands/>