



DSS-A.01.05 | Assembly / Internal Conditions

Low-E / Functional-Coating Appearance Change Inside Cavity (#2 / #3)

Assembly / internal condition - typically CAT-5 by location; out of in-place scope

Diagnosis summary

Non-uniform appearance change (e.g., patchiness, color shift/iridescence, fine "islands"/pinholes, micro-mottle) on a functional coating located on IGU cavity faces (#2 or #3). Because the affected face is between panes, it is not an exposed worked surface and is not addressable in-place; classification is governed by location/condition.

Field identification cues

- Location / access (primary):
- Use surface numbering to identify #2/#3. Demonstrate between-pane by fixed parallax (feature stays fixed relative to its reflection as the observer moves). CAT-5 by location when confirmed.
- Surface-catch class (MSRT):
- Not determinative for a cavity-face condition. MSRT applies to exposed faces only and is a single, non-marring pass used to support classification-not acceptance.

Classification, severity and scope

- CAT-5 - Out of scope for in-place restoration when the anomaly resides on #2/#3 (between panes). Document and refer per project protocol (manufacturer/warranty/replacement).

Distinguishing criteria

- vs.
- vs. Exterior/interior residue films (R-family): Face-side films respond to Non-Invasive Reveal; cavity anomalies do not.
- vs. Internal volatile fog/haze (A.01.01): Haze presents as a diffuse veil; coating corrosion shows patchy/color change with coating-like boundaries.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique, with raking; include frames that show patch boundaries and at least one parallax sequence demonstrating a between-pane cue.
- Forms: Record pane ID; surface numbering (#1-#4; laminate-internal); worked surface Y/N; functional coating present on worked surface?
- Narrative split: "Cavity-face functional-coating anomaly on #2/#3; CAT-5 by location.

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-01-05-low-e-functional-coating-appearance-change-inside-cavity-2-3/>