

DSS-E.04.03 | Environmental Exposure / Weathering

Curtain Wall Runoff Staining (Adjacent Materials Interactions)

Environmental residue/attack - soils/minerals/chemicals mobilized from adjacent envelope materials; vertical bay-to-bay run curtains, tannin/metal oxide tones, silicone/bitumen halos; typically SC-0 for film-only, localized SC-1 where cyclic deposition produces very shallow micro-texture; reclassify to mineral system if crystalline rims/etch dominate

Diagnosis summary

Curtain wall runoff staining (adjacent materials interactions) is an appearance change on glass caused by moisture transporting constituents from neighboring materials-sealants, gaskets, metals, masonry, timber, coatings-onto the glass surface during rain/dew/condensation events.

Field identification cues

- Surface-catch class (MSRT)
- SC-0 where deposits are film-only and lift on reveal.
- SC-1 in zones of long-cycle deposition producing very shallow micro-texture; SC-2 suggests misclassification-check Ch.03.03 mineral etching or M.02 abrasion.
- Perform one light, non-marring pass on a small revealed test patch (substrate). Use a polymer stylus if a functional coating is suspected. MSRT supports classification only.

Classification, severity and scope

- Assign CAT by visibility at acceptance geometry and MSRT after a reveal patch. Depth values are indicative-field measurement not required.
- CAT-1 (Benign / non-relief): Tone-specific run curtains comprised of residue only; SC-0; primarily angle/raking visible; lifts on reveal. Indicative relief: 0-10 μm .
- CAT-2 (Light): Persistent toned runs post-reveal with localized SC-1 (incipient micro-texture); limited standard-view impact. Indicative relief: ~10-40 μm .
- CAT-3 (Moderate): Wide-area, bay-repeat staining legible at standard distance with consistent SC-1 inside curtains; indicates long dwell/high frequency. Indicative relief: ~40-120 μm .
- Reclassify when: White/grey crystalline rims or etched halos dominate → Ch.03 Mineral system; linear wipe/iridescence → R.04.01 Detergent/surfactant film; metallic speck/pits → Th.01.02 grinder spark.

Distinguishing criteria

- vs. E.04.01 recurring drip/run (generic): E.04.03 is used when source chemistry imparts distinctive tone/halo attributable to specific adjacent materials.
- vs.
- vs. Coating anomalies (Co-family): Coating issues are planar/patchy on designated faces, not gravity-driven from upstream materials.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; raking macros of run edges, tonal character, and interior matte; context frames showing upstream materials and.
- MSRT result (substrate): After a small reveal test patch, perform one light, non-marring pass; record SC-class (SC-0/SC-1/SC-2).
- Forms: Pane ID; product family & surface numbering; worked surface Y/N; functional coating present on worked surface?

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-e-04-03-curtain-wall-runoff-staining-adjacent-materials-interactions/>