

DSS-Ch.03.01 | Chemical Attack / Etch / Reaction

Mineral Deposits (removable)

Chemical/mineral - bonded surface deposits; no subsurface attack when fully removed

Diagnosis summary

Mineral deposits (removable) are bonded surface residues from hard water, irrigation overspray, construction rinse, or marine aerosol that sit on the glass and do not produce subsurface attack when promptly addressed. After a proper Non-Invasive Reveal (neutral pH/distilled water + lint-free microfiber) deposits may partially or fully clear;

Field identification cues

- Surface-catch class (MSRT)
- Before removal, MSRT may feel gritty/proud residue (do not use MSRT across crystalline nodules).
- After Non-Invasive Reveal and careful residue lift, a true deposit-only case will read SC-0 (no relief) on the glass substrate.
- Use one light, non-marring pass only to confirm substrate relief status after residues are lifted at a small test area; polymer stylus if a coating is suspected. MSRT supports classification only.

Classification, severity and scope

- Assign CAT by appearance under VIS geometry after reveal testing of a small, representative area. If, once residues are removed, the substrate reads SC-0, classify within CAT-1.
- CAT-1 (Benign / non-relief): Deposit only; after removal the substrate is SC-0 with no micro-texture; visibility at acceptance distances falls away when clean/dry.
- Reclassify when:
- Shadow persists after full removal but reads SC-0 → consider Ch.03.02 Mineral staining (non-etch).
- Modeled micro-texture remains with SC-1/SC-2 → classify Ch.03.03 Mineral etching (CAT-2/3/4 by cues).

Distinguishing criteria

- vs. Mineral staining (Ch.03.02): Staining leaves a cleaning-resistant tone shift but SC-0; deposits remove fully with no shadow.
- vs. Mineral etching (Ch.03.03): Etch shows modeled micro-texture and SC-1/SC-2 after thorough removal.
- vs. Alkaline/acid etch (Ch.01/.02): Chemical etch presents flow-organized films and SC-class > 0 on the substrate after residue removal.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; capture pre-reveal overall and post-reveal test patch showing substrate condition; include raking macros verifying SC-0.
- MSRT result (substrate only): After lifting a small representative deposit without abrasion, record SC-class (expect SC-0 for deposit-only).
- 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-ch-03-01-mineral-deposits-removable/>