

## DSS-Ch.02.01 | Chemical Attack / Etch / Reaction

# Cement / Mortar Slurry Etch (high pH)

Chemical - alkaline attack; flow sheets, splash constellations, chalky crusts

### Diagnosis summary

Cement/mortar slurry etch is alkaline (high-pH) attack on the exposed glass surface from wet cement, mortar, grout, or concrete slurry. It presents as flow-organized films, splash/fleck constellations, and, after drying, may leave alkali/silicate reaction haze or chalky crusts; prolonged dwell can produce subsurface micro-texture (etch). Classification is appearance-only per VIS (method-agnostic).

### Field identification cues

- Surface-catch class (MSRT)
- SC-0 when a residual film only remains (no relief) and clears with reveal.
- SC-1 (slight) to SC-2 (clear) where alkaline etch produced micro-texture; single light, non-marring pass only; polymer stylus if a coating is suspected. MSRT supports classification only.
- Visual signature

### Classification, severity and scope

- Assign CAT by appearance + MSRT + morphology (three-part cueing). Depth ranges are indicative-measurement not required.
- CAT-1 (Benign / non-relief): Film only, clears at reveal; SC-0; visible mainly in raking at close/standard. Indicative relief: 0-10 µm.
- CAT-2 (Light): Subtle etched field with SC-1; grainy micro-texture apparent in raking; limited impact at standard view. Indicative relief: 10-40 µm.
- CAT-3 (Moderate): SC-2 across flow bands; grainy frost legible at standard distance; edge build-ups well defined. Indicative relief: 40-120 µm.
- CAT-4 (Severe): Pronounced matte/frosted sheets/legs; possible crust islands or aggregate fines impressions; distinct at standard & wide-field. Indicative relief: 120-300 µm+.

### Distinguishing criteria

- vs. HCl brick-wash fallout (Ch.01.02): HCl runs show cleaner frost with sharper run edges and often rusted metals nearby; alkaline slurry leaves chalky/grainy residue and milky haze.
- vs. Organic-acid footprints (Ch.01.03): Biogenic patches are localized, organic shapes with pool centers; slurry forms sheeting/splash patterns aligned with work zones.
- vs. Mechanical scoring (M.01): Scoring is linear with chip-flank sparkle; alkaline etch shows non-directional grain with flow geometry.

### Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; include raking macros resolving grain and run edges; add context frames showing cement/masonry source and runoff path.
- MSRT result: One light, non-marring pass on a representative field/run edge; record SC class (SC-0/1/2). Prefer polymer stylus if a coating is suspected.
- 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-02-01-cement-mortar-slurry-etch-high-ph/>