

DSS-Ch.01.02 | Chemical Attack / Etch / Reaction

Muriatic / Brick-Wash Fallout (HCl)

Chemical - hydrochloric acid splash/mist/runoff; etched flow films and drip legs

Diagnosis summary

Muriatic/brick-wash fallout is acid exposure from hydrochloric acid (HCl) solutions used for masonry cleaning or concrete etch. It typically presents as flow films, drip legs, and splash constellations that leave etched micro-texture and tone/shine shift on the exposed face. Classification is appearance-only per VIS (method-agnostic). Inspect after Non-Invasive Reveal under VIS lighting/geometry;

Field identification cues

- Surface-catch class (MSRT)
- SC-1 (slight) to SC-2 (clear) within etched run/film areas; SC-0 if only a residual cleaning film remains (reveal should remove film). Perform one light, non-marring pass; polymer stylus if a coating is suspected.
- Visual signature
- Flow-organized morphology: continuous bands/legs/sheets tied to gravity; no chip flanks or continuous abrasive tracks.

Classification, severity and scope

- Assign CAT by appearance + MSRT + morphology (three-part cueing). Depth ranges are indicative-measurement is not required.
- CAT-1 (Benign / non-relief): Tone/shine shift only, SC-0 after reveal; visible primarily in raking at close/standard view; suggests residual film, not etch. Indicative relief: 0-10 μm .
- CAT-2 (Light): Subtle etched flow film, SC-1, limited impact at standard view; edges soft. Indicative relief: 10-40 μm .
- CAT-3 (Moderate): Clear detect (SC-2) across run/film; modeled micro-texture visible at standard distance with legible flow geometry. Indicative relief: 40-120 μm .
- CAT-4 (Severe): Pronounced frost/matte along drip trains or pooling shelves; distinct at standard & wide-field; may exhibit localized whitening. Indicative relief: 120-300 $\mu\text{m}+$.

Distinguishing criteria

- vs. Acid-etch graffiti (Ch.01.01): Graffiti presents intentional stroke geometry with drip legs from stroke ends; brick-wash fallout shows gravity-organized sheets/runs without letterForms:
- vs.
- vs. Mechanical scoring (M.01): Scoring shows continuous lineation with chip-flank sparkle; chemical runs are non-directional micro-texture within flow bands.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; include raking macros resolving flow edges/drip legs and modeled micro-texture; add context frames showing.
- MSRT result: One light, non-marring pass on a representative run/film; record SC-class (SC-1/SC-2 if etched; SC-0 if film 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-01-02-muriatic-brick-wash-fallout-hcl/>