

DSS-V.02.01 | Vandalism

Acid-Marker Tagging (HF-Bearing)

Intentional chemical etch - field-applied acids/fluoride gels; whitened modeled micro-texture with run legs/cream swirls/meniscus rings; typically SC-2 in worked strokes, SC-1 at feather; depth depends on chemistry, dwell, and reapplication

Diagnosis summary

Acid-marker tagging is an appearance change produced by field-applied acidic agents (often HF-bearing gels/creams or “etch pens”) that chemically attack silica, creating whitened, matte micro-texture in letter/stroke geometry. Presentations include freehand tags, initials, and panel-fill scribbles; artifacts such as cream swirls, meniscus rims, runs/drips are common.

Field identification cues

- Surface-catch class (MSRT)
- SC-2 across worked strokes (distinct interruption from etched micro-texture).
- SC-1 in feathered halos/thin film zones; SC-0 outside the affected area.
- 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; do not abrade to “prove” relief.

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-2 (Light): Thin, feathered acid film forming pale stroke ghosts; SC-1-SC-2 intermittently; minimal standard-view impact. Indicative relief: ~10-40 µm.
- CAT-3 (Moderate): Clearly legible etched strokes visible at standard distance, SC-2 consistent; meniscus rings/runs evident. Indicative relief: ~40-120 µm.
- CAT-4 (Severe): Bold, over-worked fills or re-etched layers producing strong whitening legible at standard and wide-field; SC-2 throughout, possible local undercut/roughness.
- Reclassify when: If strokes are incised with chip-flank sparkle → V.01.02 scribed/engraved; if field is uniform granular matte with mask-sharp edges → V.01.01 abrasive-blast; if residue is amber/oily.

Distinguishing criteria

- vs. Scribed grooves (V.01.02): Scribing shows sharp grooves with chip flanks and directional incision; acid-tags show whitened modeled texture, swirls, runs, and soft stroke edges.
- vs. Abrasive-blast (V.01.01): Blast fields are uniform within masks and granular; acid-tags show application artifacts (cream swirls/runs) and variable whiteness.
- vs. Mineral etch (Ch.03.03): Mineral etch forms halo rings and non-graphic fields tied to wetting; acid-tags form intentional stroke geometry with tool/cream patterns.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; raking macros of meniscus rims, swirl/brush patterns, run legs; overview of entire tag and context of public interface.
- MSRT result (substrate): After a small reveal test patch, perform one light, non-marring pass through stroke body and halo; record SC-class (SC-2 body, SC-1 halo, SC-0).
- 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-v-02-01-acid-marker-tagging-hf-bearing/>