

DSS-M.05.02 | Mechanical Abrasion, Scoring, Impact & Cracking

Long FD Scratch Field

Mechanical - Fabrication Debris Scratches

Diagnosis summary

Pane-scale, predominantly parallel lineations caused by trapped/dragged fabrication debris during washing/handling, typically extending across large regions (often banded) rather than isolated short clusters. Classified by visual morphology and surface-catch response; methods of removal are outside scope.

Field identification cues

- Surface-catch class (MSRT): SC-1 to SC-2 typical; escalate to SC-3 when bright chip flanks/pitting accompany lines. Perform one light, non-marring pass per VIS §5.5; prefer polymer stylus on suspected coated faces.
- Visual signature: Long-run, near-parallel scoring that forms fields/bands rather than a single track; localized bright “edge sparkle” under raking light indicates increasing depth.
- Location/access: Record pane ID and surface numbering (#1-#4; laminate-internal). If fixed parallax shows the cue is between panes, classify CAT-5 (out-of-place scope).

Classification, severity and scope

- CAT-2 (Light): SC-1; narrow, clean-edged lines; limited impact at standard view.
- CAT-3 (Moderate): SC-2-SC-3; clear catch; minor chip flanks may appear; noticeable at standard view.
- CAT-4 (Severe): SC-3 with pronounced chip flanks, crater-pepper, or dense banding evident at wide-field views.
- CAT-5: Use only when location/condition places the defect out of in-place scope (e.g., IGU cavity).

Distinguishing criteria

- vs. Cutting skid lines (factory, edge-zone): Skid lines are short, edge-confined micro-lines; FD fields are long-run, pane-face bands that may escalate in catch.
- vs. Linear tracks (M.01): Single scraper/straightedge tracks present as one or a few distinct lines with consistent direction; FD fields present as many near-parallel lines forming bands.
- vs. Abrasion fields (M.02): Abrasion fields show webbing/swirls and broader texture; FD fields are dominantly linear/parallel.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique (~60°-120°); include raking-light frames.
- MSRT result: Record SC class (one pass, non-marring; polymer stylus on suspected coated faces).
- Forms: Pane ID; surface numbering; worked-surface Y/N; “coating present on worked surface?” Y/N/Unknown; reveal status; lighting/time; geometry checklist.

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-m-05-02-long-fd-scratch-field/>