

## DSS-M.06.01 | Mechanical Abrasion, Scoring, Impact & Cracking

# Hole Edge Micro-Chips (excess)

Mechanical - drilling/notching-related; perimeter of penetrations

### Diagnosis summary

Hole edge micro-chips (excess) are small, discrete chiplets at the perimeter of a drilled hole or machined slot that exceed normal manufacturing artifacts and/or intrude onto the exposed face. They present as bright faceted nicks; at higher severities, short chip flanks point inward from the perimeter. Classification is appearance-only per VIS (method-agnostic).

### Field identification cues

- Surface-catch class (MSRT)
- Chips confined to the perimeter edge (no face intrusion): typically SC-0 at the face.
- Chips that break onto the face: SC-1 (slight) to SC-2 (clear) on a light, single non-marring pass. Prefer polymer stylus on suspected coated faces; MSRT supports classification, not acceptance.
- Visual signature

### Classification, severity and scope

- Assign CAT by appearance + MSRT + morphology (three-part cueing under VIS). Depth bands are indicative only-numeric measurement is not required.
- CAT-2 (Light): Few shallow micro-chips; SC-1 at intrusions; clean edges, no pronounced chip flanks; primarily a raking-only cue at close/standard view. Indicative depth: ~10-40 µm.
- CAT-3 (Moderate): More numerous chips with SC-2 (clear); minor chip flanks and occasional pepper; noticeable at standard view. Indicative depth: ~40-120 µm.
- CAT-4 (Severe): Dense ring/coalescing losses with rough, bright flanks, peppered pits, or incipient spalls; visible at standard & wide-field views. Indicative depth: ~120-300 µm+.
- CAT-5 (by location/condition): Through-thickness/running cracks, pane movement, or between-pane/inaccessible location → CAT-5 (non-repairable/out of in-place scope); document and refer.

### Distinguishing criteria

- vs. Factory exit-lip (P.03.04): Exit-lip is a continuous burr confined to the hole/slot; face reads SC-0 and no discrete bright facets. Do not classify as damage.
- vs. Edge “shelling” at holes/slots (M.03.04): Shelling shows larger, crescent spalls breaking onto the face with clear flanks; micro-chips are small, discrete.
- vs. Linear scoring (M.01): Scoring forms extended tracks; hole-edge micro-chips are peripheral and localized.

### Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in; normal + oblique; include raking macros of representative micro-chips (resolve facet/flare) and at least one context frame showing the.
- MSRT result: Record SC-class (SC-0/1/2) with one light, non-marring pass on a representative chip that intrudes onto the face; polymer stylus on suspected coated faces.
- 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-m-06-01-hole-edge-micro-chips-excess/>