

DSS-M.04.01 | Mechanical Abrasion, Scoring, Impact & Cracking

Impact Divot (non-through)

Mechanical - localized contact/impact; no through-thickness break

Diagnosis summary

A non-through impact divot is a localized indentation/pit on the exposed surface caused by a blunt contact or small projectile that does not result in a through-thickness crack or star-break. Classification here is appearance-only per VIS (method-agnostic). Inspect under VIS lighting/geometry, after Non-Invasive Reveal, and record surface numbering and worked-surface status on Forms

Field identification cues

- Surface-catch class (MSRT)
- Expect SC-1 (slight) for shallow dimples; SC-2 (clear) where a defined crater rim/chip flanks are present.
- Visual signature
- Localized pit/crater with bright rim and no continuous lineation; if chip flanks or peppered satellites appear, escalate severity by morphology (see CAT mapping).

Classification, severity and scope

- Assign category by appearance + MSRT + morphology (three-part cueing under VIS). Depth figures below are indicative to anchor the spectrum:
- CAT-2 (Light): Shallow dimple with SC-1; clean crater edge, no chip flanks; mainly a raking-only cue at close/standard view. Indicative depth: ~10-40 µm.
- CAT-3 (Moderate): Pronounced pit with SC-2 (clear); minor chip flanks and/or modeled micro-texture around the rim; noticeable at standard view. Indicative depth: ~40-120 µm.
- CAT-4 (Severe): Deep crater with rough, bright flanks, peppered micro-pits, or adjacent crater field; clearly visible at standard & wide-field views. Indicative depth: ~120-300 µm+.
- CAT-5 (by location/condition): If integrity indicators are present (active cracks, star-break, moving pane) or the cue is between panes/inaccessible, record CAT-5 and refer.

Distinguishing criteria

- vs.
- vs. Open inclusion ("open stone," P.02.03): An open stone can mimic a crater but relates to a processing inclusion; use MSRT + reveal and look for irregular inclusion boundary vs.
- vs. Linear scoring (M.01): Scoring forms extended lines/tracks with clear catch; an impact divot is localized.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; include raking macros of the crater rim and at least one context frame establishing isolation (i.e., not a field of).
- MSRT result: Record SC-class (SC-0/1/2) with one light, non-marring pass; polymer stylus preferred on suspected coated faces.
- Forms: Pane ID; product family & surface numbering (#1-#4; laminate-internal); 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-04-01-impact-divot-non-through/>