

DSS-M.03.03 | Mechanical Abrasion, Scoring, Impact & Cracking

Corner Crush / Corner Spall

Mechanical - edge & corner damage

Diagnosis summary

Corner crush / corner spall are localized, shell-type losses at the glass corner/near-corner arris caused by impact, handling, or bearing stress. They present as irregular clamshells and faceted fracture surfaces; short, radial micro-cracks may be present. Classification here is appearance-only per VIS (method-agnostic).

Field identification cues

- Surface-catch class (MSRT)
- Expect SC-2 (clear) at the chip perimeter when the loss intrudes onto the exposed face. Perform one light, non-marring pass only per VIS §5.5; do not abrade or "probe." Prefer a polymer stylus on suspected coated faces.
- Visual signature
- Irregular clamshell geometry with rough, bright fracture edges; may show short micro-cracks radiating from the corner or from hardware-related stress points (if applicable). Distinguish from uniform factory edge finishes.

Classification, severity and scope

- Assign category by appearance + MSRT + morphology (three-part cueing under VIS); depth values below are indicative only:
- CAT-2 → low CAT-3 (lower bound): Small, shallow shell intruding minimally onto the face; SC-1-SC-2; mainly a raking-light cue at close/standard view. Indicative depth: ~10-40 µm.
- CAT-3 (typical): Pronounced clamshell with clear catch and bright, rough chip flanks; noticeable at standard view. Indicative depth: ~40-120 µm.
- CAT-4 (upper bound): Deep/extended spall with secondary pits/craters and/or short cracks; clear/strong catch, clearly visible at standard and wide-field views. Indicative depth: ~120-300 µm+.
- CAT-5 (by location/condition): Between-pane/inaccessible or structural integrity indicators (active cracks, moving pane) → out of in-place scope; document and refer per project protocol.

Distinguishing criteria

- vs. Edge micro-chipping (M.03.01): Micro-chips are tiny, isolated nicks with less face intrusion; gross spalls show larger shell faces and rough flanks.
- vs. Factory seamed/arris edge (P.03.01) or edge grind/polish pattern (P.03.02): Factory features are uniform, edge-bound and read SC-0 on the face; no discrete chip flanks.
- vs. Drill/slot exit lip (P.03.04): Exit lips are continuous burrs confined to hole/slot perimeters; escalate only if discrete face-side chips propagate from the feature.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique, include raking macros of chip flanks and at least one context frame showing corner location and any absence/presence of a.
- MSRT result: Record SC class (SC-0 / SC-1 / SC-2 as observed). One pass, non-marring; on suspected coated faces use polymer stylus or rely on visual cues.
- 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-03-03-corner-crush-corner-spall/>