

DSS-M.04.02 | Mechanical Abrasion, Scoring, Impact & Cracking

Star Break / Bullseye Initiation (annealed/laminated)

Mechanical - impact-initiated fracture pattern

Diagnosis summary

Star breaks / bullseye initiations are impact-origin fracture patterns characterized by a central origin with radial and/or circumferential cracking. For annealed or laminated architectural glass, the presence of active cracks or a star-type network constitutes an integrity indicator and is out of in-place restoration scope under VIS (CAT-5). Classification here is appearance-only; methodology is out of scope.

Field identification cues

- Surface-catch class (MSRT)
- Do not perform MSRT across an open crack network. If needed, a single light, non-marring pass may be used adjacent to the origin only to sense any crater rim (SC-class), but MSRT is auxiliary and never determinative for integrity.
- Visual signature
- Radial arms emanating from a point origin; may include a small crater/pit with bright rim in raking light. Any through-thickness or running crack is an integrity indicator.

Classification, severity and scope

- Assign category by appearance + integrity (three-part cueing applies; VIS):
- CAT-5 (default for this entry): Active cracks / star or ring network present in annealed or laminated glass → Non-Repairable / Out of Scope for In-Place Restoration.
- Reassign only if no cracking is present: If examination confirms no cracks and only a localized pit/divot exists, classify under M.04.01 Impact Divot (CAT-2/3/4 by morphology + MSRT).
- CAT assignment is appearance/condition-based; acceptance is separate (VIS §6).

Distinguishing criteria

- vs. Impact divot (M.04.01): A divot shows a localized crater rim without a radial crack network. Any running/radial arm(s) → this entry (CAT-5).
- vs. Pellet/BB impact signature (M.04.03): Pellet strikes on annealed/laminated often initiate star patterns; if cracks are present, treat as CAT-5 by integrity.
- vs.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique, include raking macros of the origin and arms; at least one context frame showing pane edges/corners and no worked.
- MSRT result: If a crater is present, you may record SC-class adjacent to the origin without crossing cracks; one light, non-marring pass only; polymer stylus on suspected.
- Forms: Pane ID; product family & surface numbering; worked surface Y/N; functional coating 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-04-02-star-break-bullseye-initiation-annealed-laminated/>