

DSS-P.02.02 | Processing / Manufacturing Features

Seeds / Blisters (entrapped gas)

Float & raw glass feature - reference; generally not “damage”

Diagnosis summary

Seeds/blisters are gas inclusions formed during melting/float manufacture, appearing as encapsulated bubbles within the glass body. When fully encapsulated, they are a manufacturing feature and not a surface-relief defect. Evaluate using VIS lighting and viewing geometry for observation consistency; product acceptance for factory inclusions is separate from post-restoration acceptance under VIS.

Field identification cues

- Surface-catch class (MSRT):
- Fully encapsulated seed/blister: SC-0 (none) - a single, light, non-marring pass detects no tactile relief because the feature is within the glass, not on the exposed surface. Do not abrade or repeat.
- Open blister / burst inclusion: If the bubble has broken to the surface, it will read as a local pit/crater and may present clear catch; classify by morphology (see CAT-3/4 cues; see “Pit / Crater” term).
- Visual signature:

Classification, severity and scope

- Encapsulated seed/blister (non-relief): Processing Feature - Not Surface Damage (outside CAT-1...CAT-4). Document and proceed per project specifications for factory inclusions.
- Open blister / surface pit: Classify by observable morphology and surface-catch (often CAT-3/4 depending on depth cues).
- Between-pane or inaccessible condition: If a look-alike defect is confirmed within IGU cavity (fixed parallax) or otherwise out of in-place scope, record CAT-5 and refer per project protocol.

Distinguishing criteria

- vs. Metallic/paint specks (Residues/Overspray): Residues typically clean/soften with reveal; encapsulated blisters do not.
- vs. Micro-abrasion “pepper”: Abrasion fields show directional patterning or webbing and may escalate to slight/clear catch; encapsulated seeds are isolated and SC-0.
- vs. Hot-particle pits (Th.01): Thermal pits often exhibit bright chip flanks and clear catch; encapsulated seeds do not. Classify thermal pits per M/Th families.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; include raking usage; where practical, capture a fixed reference to demonstrate lack of boundary/working.
- MSRT: Record SC-0 for encapsulated features (one pass only; non-marring). If open, record SC-1/SC-2 accordingly.
- Forms: Pane ID; surface numbering; worked surface Y/N; coating present on worked surface? (Y/N/Unknown); reveal status; lighting/time.

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-p-02-02-seeds-blisters-entrapped-gas/>