

DSS-P.04.04 | Processing / Manufacturing Features

Curved/Bent Glass Local Thickness / Thinning Signatures

Specialty/Decorative systems - reference; generally not "damage"

Diagnosis summary

Curved/bent glass local thickness/thinning signatures are pane-scale shape and thickness variations inherent to thermal bending/forming. They can present as subtle local thinning or thickening zones (e.g., at tight radii or near quench/bend tooling influence) that modulate reflections/transmission without forming a worked perimeter on the exposed face. These are manufacturing attributes observed under VIS geometry;

Field identification cues

- Surface-catch class (MSRT)
- SC-0 (none) at the exposed face. Make one light, non-marring pass per VIS §5.5 to confirm no local relief; MSRT supports classification only (do not abrade).
- Visual signature
- Pane-scale, non-perimeter optical shape/thickness effects contiguous with the bent geometry; no chip flanks, pits/craters, and no worked transition ring on the clear face.

Classification, severity and scope

- Processing/design feature - not field damage.
- If factory flatness/optical distortion must be quantified for product acceptance, refer to product specifications (e.g., ASTM C1036/C1048) and optical distortion background (ASTM C1651, informative).
- The Glass Restoration Standards...

Distinguishing criteria

- vs. Roller wave (P.01.01): Roller wave is periodic flatness deviation from heat-treat; bent-glass thickness signatures are geometry-driven and track the bend radius, both SC-0 at the face.
- vs. Abrasion fields (M.02): Abrasion shows directional patterning and can escalate to slight/clear catch; bent-glass thickness signatures remain SC-0 and lack a worked boundary.
- vs.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in; normal + oblique; include raking macros as needed; capture a straight-line reflection frame (mullion/string-line/horizon) across the bent.
- MSRT result: Record SC-0 (one light, non-marring pass; do not abrade).
- 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-p-04-04-curved-bent-glass-local-thickness-thinning-signatures/>