

DSS-P.04.01 | Processing / Manufacturing Features

Ceramic Frit Pattern Boundaries (design)

Specialty / decorative system - reference; generally not "damage"

Diagnosis summary

Ceramic frit (silk-screened/enamel) is a fired, glass-ceramic coating applied in controlled patterns (e.g., dots, lines, gradients, bands) for solar control, opacity, or aesthetics. Pattern boundaries (dot-matrix edges, band terminations, registration seams) are intentional design features, not worked-surface defects. Observation follows VIS inspection geometry;

Field identification cues

- Surface-catch class (MSRT):
- On the intended frit face, record the MSRT result without probing; run one light, non-marring pass only. Treat frit as product geometry/finish; on coated systems or IGUs default to visual morphology + location if any risk exists.
- Visual signature:
- Pattern-true edge with no worked transition ring, no chip flanks/pits, and no directional swirl/web typical of mechanical/chemical damage.

Classification, severity and scope

- Design/processing feature - not surface damage.
- Escalate when:
- Frit over-spray / smear / offset appears outside the intended pattern (see Co.05.01 / Co.05.03) or a rub/scuff changes sheen (Co.02.02 / Co.01.01).
- Between-pane indication (fixed parallax at #2/#3 in an IGU) or otherwise inaccessible → CAT-5 by location/condition; refer per project protocol.

Distinguishing criteria

- vs. Paint overspray (R.02.01 / Co.05.03): Overspray leaves random, non-registered specks/film beyond design edges; may soften with reveal or show directional deposition.
- vs. Coating rub/patchiness (Co.01/Co.02/Co.03): Rubs create sheen shifts or streaks that may have a worked perimeter; VIS disallows anomalies on the worked surface at acceptance.
- vs. Abrasion fields (M.02): Abrasion shows swirls/web/cross-hatch and can escalate to SC-1/SC-2; frit boundaries remain pattern-true and non-tactile at adjacent clear glass.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; include raking macros of the boundary and context frames proving pattern continuity (not a localized worked patch).
- MSRT result: Record SC class at adjacent clear face (avoid probing into frit). One pass only; non-marring. On suspected coated surfaces, prefer polymer stylus or visual-only.
- Forms: Pane ID; surface numbering; worked surface Y/N; functional coating present on worked surface? (Y/N/Unknown); geometry checklist; photos attached.

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-04-01-ceramic-frit-pattern-boundaries-design/>