

DSS-P.01.01 | Processing / Manufacturing Features

Roller Wave (Periodic Flatness Deviation)

Processing / Manufacturing Feature - reference; generally not damage

Diagnosis summary

A periodic flatness deviation characteristic of heat-treated flat glass that appears as bands/undulations in reflection or transmission. It is a factory feature of the product, not a field-induced surface relief defect. For measurement background on optical/roll-wave distortion in heat-treated flat glass, see ASTM C1651 (informative reference noted in VIS).

Field identification cues

- Surface catch (MSRT): none (PVA as "damage" ≈ 0 at the surface). Perform one light non-marring pass only to confirm absence of relief.
- Morphology: global/periodic flatness effect; no chip flanks, no pits, no modeled micro-texture.
- Visibility geometry: evaluate under VIS Section 5-raking/low-angle light as needed, with 12/36/72 in distances and normal + oblique sweep.

Classification, severity and scope

- Not field damage. Do not classify as CAT-1...CAT-4.

Distinguishing criteria

- Versus micro-abrasion / pad trails (M.02.01): abrasion presents localized haze or directional swirls and may show slight catch; roller wave is global/periodic and non-tactile.
- Versus over-polish/burnish (M.02.04): burnish is a localized appearance change (often directional) and may show a transition edge; roller wave has no transition edge and extends broadly.
- Versus modeled micro-texture (chemical etch): chemical etch shows non-linear micro-texture strongest in raking light and can exhibit slight/clear catch at severity; roller wave remains.

Documentation and inspection

- Photo set at 12 / 36 / 72 in under VIS geometry; include one frame with straight-line reflection (string line, mullion, horizon) to show periodicity. Note MSRT = none.

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-01-01-roller-wave-periodic-flatness-deviation/>