

DSS-U.01.02 | Uncertain / Mixed Mechanisms

Modeled Micro-Texture with Embedded Particulates (Uncertain Chemistry)

Mixed/unknown mechanism - low-contrast matte with fine embedded or partially embedded specks; may result from chemical softening plus particulate impingement/setting; SC-1 broadly in field, isolated SC-2 at raised particulates or micro-divots

Diagnosis summary

Modeled micro-texture with embedded particulates is an appearance change in which a subtle, non-directional matte field is accompanied by discrete specks that appear embedded or partially seated in the surface. The presentation suggests chemical softening/attack (acidic, alkaline, or mineral) combined with particle deposition/impingement, but the exact chemistry is uncertain.

Field identification cues

- Surface-catch class (MSRT)
- SC-1 across the modeled field (incipient micro-texture).
- SC-2 (pin-point) at individual raised particulates or micro-divots where a stylus crosses a protrusion or craterlet.
- Perform one light, non-marring pass on a small revealed test patch, sampling (a) clean glass control, (b) field matrix, and (c) several specks. Use a polymer stylus if a functional coating is suspected.

Classification, severity and scope

- Assign CAT by visibility at acceptance geometry and MSRT. Depth values are indicative-field measurement not required.
- CAT-2 (Light): Small patch; SC-1 matrix with sparse specks (few per 100 cm²); limited standard-view impact. Indicative relief: field ~10-40 µm, speck high/low points ~20-60 µm.
- CAT-3 (Moderate): Pane-noticeable patch/panel; SC-1 matrix with numerous specks (tens per 100 cm²) legible at standard distance. Indicative relief: field ~40-120 µm, specks ~60-150 µm.
- CAT-4 (Severe): Wide-area field with dense peppering visible at standard and wide-field views; frequent SC-2 pin-points; occasional micro-divots.
- Reclassify when (component rules):

Distinguishing criteria

- vs.
- vs. Dust-storm micro-pitting (E.02.02): Eolian pitting is directionally biased (wind-ward) and frequently gradient-based; U.01.02 lacks strong directionality and pairs with modeled matte.
- vs. Mineral etch (Ch.03.03): Mineral etch displays ring/flow halos; U.01.02 specks are random, with no consistent drip/run geometry.

Documentation and inspection

- Photo set (VIS): 12 / 36 / 72 in, normal + oblique; raking macros isolating field matte and multiple specks (include one with apparent micro-divot); overview frames showing.
- MSRT results: After a small reveal test patch, record SC-class for control (SC-0), field matrix (SC-1), and specks (SC-2 where present).
- 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-u-01-02-modeled-micro-texture-with-embedded-particulates-uncertain-chemistry/>