MULTIVIEW TECHNOLOGY

CINNAMON TOAST CRUNCH GRADING STANDARDS — V1.1

Updated October 2025

1. PURPOSE

These standards define the consistent methodology and weighting criteria used by Multiview Technology for grading Cinnamon Toast Crunch specimens. They establish the physical ideal, measurable defect tolerances, and categorical subgrade system modeled on PSA-style evaluation but tailored to cereal morphology.

2. IDEAL SPECIMEN — "A■REF"

Property	Description	Target
Planarity (Flatness)	Surface lies within a plane; minimal bowing or sag.	Curvature ≤ 3%
Corners	Four distinct, sharp 90° tips; minimal rounding.	Radius ≤ 0.30 mm
Edges	Continuous edges, no compression, flare, or chipping.	Deflection ≤ 0.20 mm
Surface Integrity	Ridge pattern intact, minimal pock marks, no scarring.	≤ 2 pocks / cm²
Coating Distribution	Even cinnamon/sugar coverage with balanced matte sheen.	Luminance variance ≤ 8%
Aspect Ratio	Width : Height near 1 : 1 (square geometry).	Within 2% of 1.00

3. REALITY BANDS — FLATNESS / WARPING

Condition	Curvature %	Interpretation	Grade Cap
Ideal Flat	0–3%	Engineering goal	—
Nominal Camber	3–5%	Acceptable; no penalty	—
Bowed	5–8%	Minor production warp	≤ 9.0
Warped	8–12%	Noticeable curvature	≤ 8.0
Severe Warp	>12%	Structural deformation	≤ 7.5

4. SUBGRADE CATEGORIES & WEIGHTS

Category	Weight	What's Judged
Corners	0.22	Sharpness, chip presence, symmetry
Edges	0.18	Compression, cracks, uniformity
Surface Integrity	0.20	Ridge clarity, pock density
Coating Uniformity	0.15	Evenness, granule distribution
Geometry / Flatness	0.25	Bowing, warping, aspect ratio

5. AUTOMATIC PENALTY CAPS

Defect	Cap Applied
Curvature > 8%	≤ 8.0
Curvature > 12%	≤ 7.5
Missing corner > 1 mm	≤ 6.5
Major pocking / ridge collapse	≤ 7.5
Burn / underbake > 10% area	≤ 7.5

6. PSA■STYLE GRADE MAP

Grade	Label	Interpretation
10	Gem Mint	Perfect; zero measurable flaw
9.5	Mint +	Barely perceptible defect
9.0	Mint	Slight curvature or coating variance
8.5	NM +	Visible bow or minor surface irregularity
8.0	NM	Distinct warp; small edge flaw
7.5	EX +	Pronounced bowing or minor chip
7.0	EX	One damaged corner or clear surface defect
6.5	VG +	Multiple structural issues
≤6.0	G–Poor	Heavy deformation, breakage, burn

11. AI TECHNICAL PROCESS

The Multiview AI Grader follows a deterministic visual pipeline for every specimen. Each image is preprocessed, analyzed, and scored via consistent algorithms that measure geometry, curvature, color, and edge integrity.

Preprocessing: Lighting normalization, background isolation, and plane estimation for curvature baselining.
Feature Extraction: Corner detection, edge mapping, surface texture sampling, coating evenness, and aspect ratio check.
Scoring: Weighted mean of five subgrades, curvature penalty applied, rounded down to nearest PSA step.
Strict■Mode: Ambiguous or partially visible data defaults to the lower plausible score, enforcing grading discipline.
Verification: A deterministic logic layer recalculates all weights, applies caps, and certifies the final grade.

12. PATCH NOTES / UPDATE LOG

Version	Date	Summary of Changes
v1.0	Oct 2025	Initial release: defined 5■category weighted model and curvature cap system.
v1.1	Oct 2025	Added AI Technical Process, Patch Notes, improved formatting, fixed character renderin

Certified & Catalogued by: Shawn Wiederhoeft • Multiview Technology