

TAMAX-TDS-05 — Iron Oxide Red S130 Pigment

TAMAX VENTURES LTD. — TECHNICAL SPECIFICATION SHEET

- Document ID:** TMX-TDS-05
- Company:** Tamax Ventures Ltd. (Kansarawdo Mampong Road, Yankey Junction, Takoradi, Ghana)
- Latest Revision:** July 2026 (Ref: v1.0)

1. Product Description & Applications

Iron Oxide Red S130 is a premium, high-strength synthetic red iron oxide pigment ($\alpha\text{-Fe}_2\text{O}_3$). Offered as a dry, loose, spherical powder, it provides superior tinting strength, chemical resistance, UV stability, and weather fastness.

Key Applications

- Construction Coloring:** Used extensively to tint concrete blockwork, colored roof tiles, paving blocks, and decorative rendering.
- Premium Plasters & Putties:** Blends with **Tamax White Cement** and **Hydrated Lime** to produce custom-colored, dampness-resistant red finish plasters.
- Coatings & Paints:** Serves as a primary red colorant in architectural paints, primers, industrial floor finishes, and wood stains.

2. Chemical & Mineral Specifications

- Chemical Classification:** Synthetic iron oxide $\alpha\text{-Fe}_2\text{O}_3$ (Dry Powder)
- Color Index Number:** Pigment Red 101 (77491)
- CAS Number:** 1309-37-1

Chemical Parameter	Test Method	Value Specification	Unit
Iron Oxide Content (Fe_2O_3)	ASTM D 50	≥ 95.0	%
Water-Soluble Salts Content	ASTM D 1208	≤ 1.0	%
Moisture Content (After Production)	ASTM D 280	≤ 1.0	%
Loss on Heating (1000°C, 0.5 hours)	ASTM D 1208	≤ 5.0	%

3. Physical & Technical Properties

Technical Property	Test Method / Reference	Mean Value Spec	Unit
Predominant Particle Size	Electron Micrographs	~ 0.2	µm
Particle Shape	Electron Micrographs	Spherical	—
Oil Absorption Range	ASTM D 281	15.0 – 25.0	g/100g
Specific Gravity (Density)	ASTM D 153	~ 5.0	g/ml
Sieve Residue (On 0.045 mm)	ASTM D 185	≤ 0.5	%

4. Color Values & Relative Tinting Strength

All values are evaluated and quality-controlled against standard reference binders using ASTM test procedures.

- **Titanium Dioxide Reduction Blend (1:2):** Sourced with standard reference R-706.

Color Coordinate Parameter	Reference Standard	Tolerance Limit Value
ΔL^* (Lightness Deviation)*	ASTM D 387	-0.7 to +0.7
Δa^* (Red-Green Deviation)*	ASTM D 387	-0.7 to +0.7
Δb^* (Yellow-Blue Deviation)*	ASTM D 387	-0.7 to +0.7
ΔE^*_{ab} (Total Color Difference)*	ASTM D 387	≤ 1.0
Relative Tinting Strength	ASTM D 387	95.0 – 105.0% (Binder R-05)

5. Packing, Storage & Safety

- **Quality Assurance:** Packaged and verified under Tamax Ventures' strict quality-control standards.
- **Packaging Options:** Supplied in heavy-duty 50lb (22.6kg) multi-walled paper bags.
- **Storage Guidelines:** Store in dry, secure facilities away from direct exposure to rainwater and extreme temperature fluctuations. Ensure bags are tightly sealed immediately after opening to prevent moisture absorption and external contamination.
- **Safety Status:** The product is not classified as hazardous under EC directives or regional West African environmental regulations. Ensure standard dust protection (mask and safety glasses) is worn when handling loose powder in bulk.