

TAMAX-TDS-02 — Fine Ground Quicklime (0/3 mm)

TAMAX VENTURES LTD. — TECHNICAL SPECIFICATION SHEET

- **Document ID:** TMX-TDS-02
- **Company:** Tamax Ventures Ltd. (Kansarawdo Mampong Road, Yankey Junction, Takoradi, Ghana)
- **Latest Revision:** July 2026 (Ref: v1.0)

1. Product Description & Applications

Fine Ground Quicklime (0/3 mm) is a highly reactive, finely ground Calcium Oxide (CaO) in the form of a white, dry, odorless powder with a controlled particle size distribution below 3.00 mm.

Key Applications

- **Gold Mining & Metallurgy:** Highly utilized in chemical cyanidation extraction loops, flotation pH control, and slag conditioning/refining.
- **Steel Manufacturing:** Functions as an active fluxing agent to separate impurities in blast furnaces.
- **Soil Stabilization:** Highly effective for drying, modifying, and chemically stabilizing clay-heavy structural sub-soils for roads, airports, and structural foundations.
- **Chemical Synthesis:** Used as an active dehydrating agent, neutralizing compound, and industrial chemical feedstock.

2. Chemical Specifications (Mean Values on Dry)

Chemical Parameter	Test Method	Value	Unit
Total Calcium Oxide — $\text{CaO} \text{ \textit{ tot} }$	Calculated	95.0	%
Available Calcium Oxide — $\text{CaO} \text{ \textit{ available} }$	ASTM C25	92.0	%
Carbon Dioxide — CO_2	Calculated	2.0	%
Magnesium Oxide — MgO	ICP	1.0	%
Silicon Dioxide — SiO_2	ICP	0.7	%
Aluminium Oxide — Al_2O_3	ICP	0.1	%
Iron Oxide — Fe_2O_3	ICP	0.2	%
Sulphur — S	LECO	0.3	%

3. Physical & Granulometric Properties

Chemical Characteristics

- **Molecular Weight:** 56.08 g/mol
- **Aspect / Appearance:** Fine, odorless white powder
- **Reactivity:** Highly exothermic reaction when in contact with water

Granulometric & Sieve Analysis

Sieve Aperture Size	Sieve Standard	Mean Value Passing	Unit
Passing Sieve 3.00 mm	Dry Sieving ISO 8.6.1.02	100	%
Passing Sieve 2.36 mm	Dry Sieving ISO 8.6.1.02	90	%

Density Parameters

Parameter	Test Method	Value	Unit
Tamped Apparent Density	ASTM C110	1.25	g/ml
Poured Apparent Density	ASTM C110	0.90	g/ml

4. Packing, Logistics & Compliance

- **Production Facility:** Supply Operations Site, Takoradi, Ghana.
- **Reference Standards:** ASTM C110, ASTM C25.
- **Packaging Options:**
 - 25kg moisture-barrier sealed paper bags.
 - 1-ton high-strength woven jumbo bags with hermetic PE liners.
 - Loose bulk delivery via specialized dry pneumatic tankers.
- **Storage Guidelines:** Store in dry, enclosed silos or protected, airtight warehouses. Because quicklime absorbs moisture from the air and reacts exothermically, it must be kept strictly away from humidity, damp air, and acidic chemicals.

[!CAUTION] **Severe Chemical & Burn Hazard:** Calcium oxide reacts **highly exothermically (generating intense heat)** upon contact with water or sweat. This reaction can ignite flammable materials and cause severe chemical skin and eye burns. Read the official Safety Data Sheet (**TMX-SDS-02**) and ensure full personal protective equipment (PPE) is worn during any handling operations.