

Glazed Clay Roofing Tiles Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real glazed clay roofing tiles line equipment.

approved sample market gate	defined formats launch scope	performance test release gate	batch records traceability
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Prepared for investment planning in Afghanistan and regional export markets. Final specifications, pricing, civil works, and utility loads require supplier quotation and site survey.

Executive Summary

Produces weather-resistant glazed clay roofing tiles from prepared Afghan clay through crushing, screening, controlled moisture mixing, vacuum extrusion or pressing, drying, glazing, kiln firing, cooling, sorting and packing.

Why this project fits Afghanistan

- Approve a physical product sample and its applicable performance standard.
- Launch with a limited, high-demand format and documented mould/tool setting.
- Keep batch, firing/cure and release records for every production lot.

Sanaatchi delivery scope

- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning
- International logistics, customs documentation, operator training, spare parts, and after-sales support

Recommended configuration

Begin with one interlocking roof-tile profile and a clay-body trial. Select clay preparation, extrusion/pressing, controlled drying and a properly instrumented kiln together; roof-tile geometry, firing curve, water absorption and frost/weather performance must be proven on local clay.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Glazed clay roofing tiles	Interlocking profile, dimensions, water absorption, fired strength, glaze adhesion, colour consistency, overlap and fixing detail	Housing, heritage projects, villas, roofing contractors and building-material dealers

Supplier scope, raw-material suitability, installation requirements and acceptance sample must be confirmed before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Clay crusher, screen and mixer	Prepares a consistent ceramic body	Local-clay moisture and particle control
2	Vacuum extruder or roof-tile press	Forms the approved interlocking profile	One launch mould/profile
3	Dryer racks or controlled dryer	Removes water without cracking or warping	Green-tile moisture schedule
4	Glaze booth and firing kiln	Applies finish and develops fired properties	Recorded firing curve
5	Roof-tile test and packing bench	Releases compatible roof units	Dimension/absorption/overlap check

Equipment models are indicative and will be matched to the selected capacity, local raw-material tests, available utilities, and preferred automation level.

Reference Equipment Gallery



Made-in-China supplier reference: real glazed clay roofing tiles line equipment.



Made-in-China supplier reference: second real machine configuration for glazed clay roofing tiles line.

Images are supplier references for configuration discussion; final equipment appearance and model may differ.

Plant, Raw Materials & Utility Requirements

Raw materials

- Tested Afghan clay, grog or sand where required, water, approved stains/glazes, kiln fuel or electricity, setters, packaging and profile-tool spares

Utilities & infrastructure

- Stable three-phase electricity, covered raw-material storage and protected finished-goods space
- Guarded machinery, documented maintenance, essential spares and defined dust/heat controls

Quality, safety and environmental controls

- Test clay plasticity, shrinkage, firing colour and absorption before buying tools
- Check green and fired dimensions, warp, cracks, glaze coverage and overlap fit
- Verify fired strength, water absorption and roof fixing/wind detail on approved samples

A final factory layout must reserve safe forklift routes, maintenance clearances, raw-material segregation, finished-goods storage, fire protection, ventilation, and future expansion space.

Indicative Investment & Implementation Plan

LOW-ENTRY CONFIGURATION

Clay roofing succeeds only when local-clay shrinkage, drying and firing are validated; a generic brick line does not automatically make accurate, weatherproof interlocking roof tiles.

Component	Indicative range	Notes
Clay preparation and extrusion/pressing	US\$45k-150k	One roof-tile profile basis
Drying, glazing and kiln system	US\$120k-420k	Fuel and firing-control scope
Handling, test equipment, freight and setup	US\$45k-140k	Local clay trials required
Indicative project total	US\$210k-710k	Land, building and clay stock excluded

Implementation sequence

Phase 1	2-5 weeks	Confirm product specification, representative raw material, buyer, capacity, site and utilities
Phase 2	3-7 weeks	Run supplier trials with the buyer material and freeze the balanced machine, tooling and utility scope
Phase 3	8-22 weeks	Manufacture or refurbish, inspect, document and ship the contracted equipment
Phase 4	3-12 weeks	Install, commission, train operators and pass material-specific acceptance tests

Ranges are planning targets for a low-cost entry configuration, exclude land, and remain subject to confirmed capacity, supplier quotation, freight, duties, exchange rates and site conditions.

Next Steps & Contact Information

Recommended next steps

- Confirm target products, hourly output, and packaging formats
- Test representative raw materials and document quality requirements
- Complete site survey covering electricity, water, fuel, drainage, roads, and warehouse space
- Request comparable technical and commercial quotations from shortlisted suppliers
- Finalize financing, logistics, installation, training, and spare-parts plan

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Research and image references

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