

Rubber Flooring-Tiles Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real rubber flooring-tiles production line equipment.

500 x 500 mm launch tile size	1 thickness entry product	50-120 t press basis	6-10 entry workforce
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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

A small downstream moulding line producing resilient rubber flooring tiles from purchased qualified tire crumb and optional coloured EPDM top granule through crumb screening, recipe weighing, controlled polyurethane-binder mixing, two-layer hand or semi-automatic mould filling, levelling, heated hydraulic compression moulding or controlled curing, demoulding and conditioning, trimming, dimensional inspection and density, hardness, tensile, abrasion, compression, slip, odour and binder-emission testing.

Why this project fits Afghanistan

- Low-entry moulding can use qualified crumb without owning a tire plant.
- Playgrounds, gyms, walkways and livestock areas create project demand.
- One tile size and thickness minimize mould and inventory cost.
- Binder ratio, cure, odour and performance tests determine durability and safety.

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

Launch one 500 x 500 mm black-base tile in one thickness using purchased 1-4 mm clean crumb, a metered mixer, two-layer mould set only if a qualified coloured top is sold, one guarded 50-120 t multi-daylight heated press, conditioning racks, trim tools and flooring tests. The upstream tire-crumb plant is separate. Cure chemistry and ventilation must be approved before production.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Black recycled-rubber floor tile	Size, thickness, density, hardness, tensile, elongation, abrasion, compression set, slip, odour and colour	Gyms, walkways, livestock and selected play areas
Coloured-top playground tile	Separate EPDM top-layer, impact attenuation, weathering and chemical-safety approval	Playgrounds after certified testing

A heated press alone is not a complete tile line. Acceptance uses approved crumb and binder, records sieve distribution, mixing time, binder ratio, mould charge, pressure, temperature and cure, then measures dimensions, mass/density, hardness, tensile/elongation, abrasion, compression set, slip, water behaviour and ageing. Playground claims additionally require critical-fall-height and chemical/emission testing to the named market standard.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Crumb screen and weighing station	Controls particle and recipe	1-4 mm base crumb
2	Metered crumb/binder mixer	Coats granules uniformly	Timed batch
3	Moulds and filling fixtures	Defines one tile size/thickness	500 x 500 mm
4	Guarded heated hydraulic press	Consolidates and cures tiles	50-120 t multi-daylight
5	Conditioning racks and trim tools	Completes cure and edges	Ventilated area
6	Flooring test laboratory	Tests physical, slip and ageing performance	End-use protocol

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 rubber flooring-tiles production line equipment.



Made-in-China supplier reference: second real machine configuration for rubber flooring-tiles production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Qualified clean 1-4 mm tire crumb
- Approved polyurethane binder with SDS and cure data
- Optional qualified coloured EPDM granule and pigment
- Release sheet/agent, wrap, labels and pallets

Utilities & infrastructure

- Stable three-phase electricity with verified connected load
- Ventilation, fire protection, guarded drives and lockout procedures
- Dry segregated raw-material and finished-goods storage
- Maintenance workshop, lifting tools and critical spares
- Local exhaust and controlled cure/conditioning area
- Binder spill control, PPE and chemical storage

Quality, safety and environmental controls

- Sieve and inspect every crumb lot
- Verify binder certificate, ratio and mixing uniformity
- Record mould charge, pressure, temperature and cure time
- Gauge dimensions, mass, density and warpage
- Test hardness, tensile, abrasion, compression and slip
- Validate odour, ageing and playground safety claims where applicable

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

A near-US\$50k launch is possible by buying certified crumb and producing one black-base tile. Tire shredding, coloured EPDM manufacture and certified playground testing are separate scopes.

Component	Indicative range	Notes
Screening, weighing and mixer	US\$7k-18k	Purchased-crumb entry
Heated press, moulds and racks	US\$14k-38k	One tile size/thickness
Laboratory, ventilation and trim tools	US\$8k-22k	Performance release
Freight, installation and spares	US\$7k-18k	Cure trials included
Indicative installed low-entry total	US\$36k-96k	Tire crumb plant, building and materials 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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