

Bituminous Waterproof-Membrane Factory

Complete Turnkey Business Proposal



Made-in-China supplier reference: real bituminous waterproof-membrane factory equipment.

bankable study investment gate	confirmed feedstock supply gate	EPC scope delivery gate	quality laboratory release gate
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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

Waterproofing plant that modifies and heats bitumen, impregnates reinforcement, coats and cools membrane, applies mineral/film finish, winds rolls and tests waterproofing performance.

Why this project fits Afghanistan

- This is a strategic plant, not a low-entry equipment package.
- Bankable feedstock, utility, permit, market, EPC and financing evidence is required before selection.
- Operate only with an independent laboratory, defined quality release and preventive-maintenance program.

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

Proceed only after bitumen/reinforcement supply, fire and fume controls, roof-market demand, installation partners, product standards and laboratory capability are confirmed.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Bituminous waterproof membranes	Membrane thickness, reinforcement, modifier, surface finish, flexibility, tensile, waterproofing and roll size	Roofing contractors, basements, bridges, water tanks, distributors and construction projects

Final capacity, process, resource quality, utilities, permit conditions, emissions, acceptance test and commercial terms require independent engineering review before any order.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Bitumen/modifier preparation	Creates coating compound	Temperature and chemistry
2	Reinforcement impregnation/coating	Builds membrane	Uniform thickness
3	Cooling/surface finishing	Stabilises top layer	Film/mineral finish
4	Winding/cutting/packing	Creates sale rolls	Length and alignment
5	Waterproofing laboratory	Releases material	Leak/flex/tensile

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 bituminous waterproof-membrane factory equipment.



Made-in-China supplier reference: second real machine configuration for bituminous waterproof-membrane factory.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Bitumen, APP/SBS modifiers, polyester/glass reinforcement, mineral granules/film, packaging, fuel, release materials and lab consumables

Utilities & infrastructure

- Bankable electricity/fuel/water plans, process cooling and treatment, plant fire safety, laboratory, covered stores and qualified operation team
- Environmental permits, emissions control, waste route, maintenance workshop, critical spares and site-specific safety systems

Quality, safety and environmental controls

- Confirm bitumen grade, reinforcement/modifier sourcing, fire/fume permit, roof climate, contractor installation and required standards
- Control bitumen temperature, coating weight, thickness, reinforcement position, cooling, finish and roll wind
- Test thickness, tensile, elongation, flexibility, heat resistance, water tightness and roll dimensions

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 membrane factory needs proven bitumen chemistry, fire/fume engineering and installer acceptance - not only a coating line.

Component	Indicative range	Notes
Bitumen preparation and coating line	US\$25m-85m	Membrane width/capacity
Cooling, finishing, winding and lab	US\$12m-40m	Surface portfolio
Fire, fume, utilities and installation	US\$15m-50m	Safety critical
Indicative strategic project total	US\$52m-175m	Land and finance 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

- agricultural-pond-liner-geomembrane-production-line
- roofing-sheet-roll-forming-line