

# Magnesium-Oxide Construction Boards Line

Complete Turnkey Business Proposal



*Made-in-China supplier reference: real magnesium-oxide construction boards line equipment.*

|                                                  |                                                   |                                                    |                                                 |
|--------------------------------------------------|---------------------------------------------------|----------------------------------------------------|-------------------------------------------------|
| <p><b>approved sample</b></p> <p>market gate</p> | <p><b>defined product</b></p> <p>launch scope</p> | <p><b>performance test</b></p> <p>release gate</p> | <p><b>batch records</b></p> <p>traceability</p> |
|--------------------------------------------------|---------------------------------------------------|----------------------------------------------------|-------------------------------------------------|

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 magnesium-oxide construction boards from qualified MgO, magnesium salt solution, mineral fillers and reinforcement through precise mixing, mat/sheet forming, pressing, controlled curing, drying/conditioning, cutting, surface finishing, test and packing.

### Why this project fits Afghanistan

- Confirm the intended application, applicable standard and buyer acceptance test.
- Use a defined product family and documented formula/tooling at launch.
- Keep material, curing/firing and release records for every lot.

### Sanaatchi delivery scope

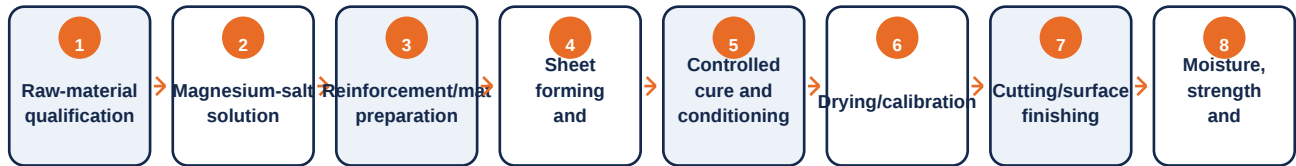
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

#### Recommended configuration

Start only after testing the local climate and verifying a stable MgO and magnesium-salt supply. The product formula must control moisture sensitivity, chloride-related corrosion risk, dimensional movement and fastener compatibility; claims must follow tested board performance.

## Manufacturing Process & Product Portfolio

### Integrated process flow



### Target products

| Product                             | Typical specification                                                                                                                                   | Primary market                                                                                                   |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Magnesium-oxide construction boards | MgO grade, density, thickness, flexural strength, moisture movement, water resistance, chloride content, fastener compatibility and fire classification | Interior partitions, ceilings, prefabricated buildings, fire-rated assemblies and building-material distributors |

Supplier scope, feedstock suitability, utilities, installation and acceptance criteria must be confirmed before purchase.

## Core Equipment Schedule

| Step | Equipment                   | Function                      | Indicative parameter               |
|------|-----------------------------|-------------------------------|------------------------------------|
| 1    | MgO/filler dosing and mixer | Controls board chemistry      | Qualified MgO/salt formula         |
| 2    | Mat/sheet former            | Builds reinforced green board | Reinforcement and thickness target |
| 3    | Press and cure chamber      | Sets board structure          | Temperature/humidity cure record   |
| 4    | Calibration/cutting line    | Produces standard panels      | Thickness/edge control             |
| 5    | Board laboratory            | Validates climate performance | Moisture/chloride/strength tests   |

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 magnesium-oxide construction boards line equipment.*



*Made-in-China supplier reference: second real machine configuration for magnesium-oxide construction boards line.*

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

## Plant, Raw Materials & Utility Requirements

### Raw materials

- Qualified MgO powder, compatible magnesium salt, mineral fillers, reinforcing mesh/fibre, process water, surface additives, packaging and cutting spares

### Utilities & infrastructure

- Industrial electricity, covered storage and protected finished-board handling
- Guarded machinery, maintenance plan, essential spares and material-specific dust/heat/chemical controls

### Quality, safety and environmental controls

- Verify MgO reactivity, salt chemistry and chloride level for every source
- Control mix ratio, reinforcement placement, cure humidity and residual moisture
- Test bending strength, water/moisture response, dimensional movement, fastener pull-out, corrosion risk and declared fire behaviour

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

Magnesium-oxide board should never be sold on generic “fireproof” claims: formulation, moisture exposure and corrosion compatibility must be demonstrated for the target Afghan installation.

| Component                               | Indicative range | Notes                           |
|-----------------------------------------|------------------|---------------------------------|
| Dosing, mixing, forming and press       | US\$300k-1m      | Medium industrial board line    |
| Curing, finishing and cutting           | US\$250k-850k    | Formula/climate control scope   |
| Laboratory, utilities and commissioning | US\$180k-650k    | Material qualification required |
| Indicative strategic total              | US\$730k-2.5m    | Building and inventory 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

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### 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

- <https://www.alibaba.com/showroom/mgo-board-production-line.html>
- [https://www.made-in-china.com/products-search/hot-china-products/Mgo\\_Board\\_Machine.html](https://www.made-in-china.com/products-search/hot-china-products/Mgo_Board_Machine.html)