



Building Materials – AI ERP TicketingOS

National Cement · National Ready-Mix · Lemi National Cement

Raw material procurement · Production batch · Bulk dispatch · Weighbridge integration



Key ERP Requirements (Building Materials)

- **Raw material procurement** – Limestone, clay, gypsum, slag – supplier management, quality testing, stockpile tracking
- **Production batch** – Clinker production, cement grinding, batch-wise quality control (fineness, setting time)
- **Bulk dispatch** – Cement silo management, loading to bulkers / bag packing, weighbridge integration (real-time)
- **Weighbridge integration** – Automatic weight capture, ticket printing, integration with ERP for invoicing



Building Materials Execution Flow (ID + Progress)

ID	Process	Activity	Progress %
4001	Raw Material Procurement	Quarry / import purchase, QC at gate	5
4002	Material Stockpile	Barcode/lot assignment, moisture tracking	10

ID	Process	Activity	Progress %
4003	Production Planning	Kiln schedule, mill load optimisation	20
4004	Clinker Production	Kiln feed, temperature control, output batch	40
4005	Cement Grinding	Additives (gypsum), fineness testing	55
4006	Quality Control	Setting time, compressive strength, chemical analysis	60
4007	Bulk Silo Storage	Inventory by grade (OPC, PPC), silo level monitoring	70
4008	Weighbridge & Dispatch	Vehicle weigh-in/out, auto ticket, loading	85
4009	Customer Invoicing	Based on weighbridge net weight, GST/e-way bill	95
4010	Payment & Settlement	Credit term / advance, dealer commission	100



Payment & Dispatch Milestones (Weighbridge Integrated)

Stage	Condition	Payment %
Sales order (dealer/contractor)	Confirmed PO, credit limit check	—
Vehicle loaded & weighbridge ticket	Net weight captured, e-way bill generated	50% advance (for spot sales)
Delivery & POD	Customer signature on weighbridge ticket	50% balance
Monthly dealer settlement	Consolidated weighbridge reports	100% within 15 days

 Weighbridge → ERP auto-captures net weight, calculates GST, prints invoice instantly.

AI Automation for Building Materials

Weighbridge OCR + RFID – Automatic vehicle identification, weight capture, ticketless dispatch

Production batch QC AI – Predicts cement strength from clinker chemistry + mill parameters

Raw material replenishment – Stockpile level sensors → auto PO to quarry

Route optimisation for bulkers – Real-time traffic + site delivery windows → reduce turnaround

ERP Modules

Raw material procurement & stockpile

Production batch (kiln/mill)

Quality control lab (cement testing)

Silo & bulk inventory

Weighbridge integration

Dispatch & dealer invoicing

AI ERP TicketingOS – Building Materials (Cement, Ready-Mix). Print to PDF → Save as PDF.