



AL-WAFAA
FOR TRADING
EGYPTIAN CEMENT EXPORT

PORTLAND LIMESTONE CEMENT (PLC) CEM II/A-L 42.5N

High quality Portland Limestone Cement manufactured in Egypt using the finest limestone and clinker to ensure excellent performance, workability and durability in concrete.



LOWER CO₂
EMISSIONS



EXCELLENT
DURABILITY



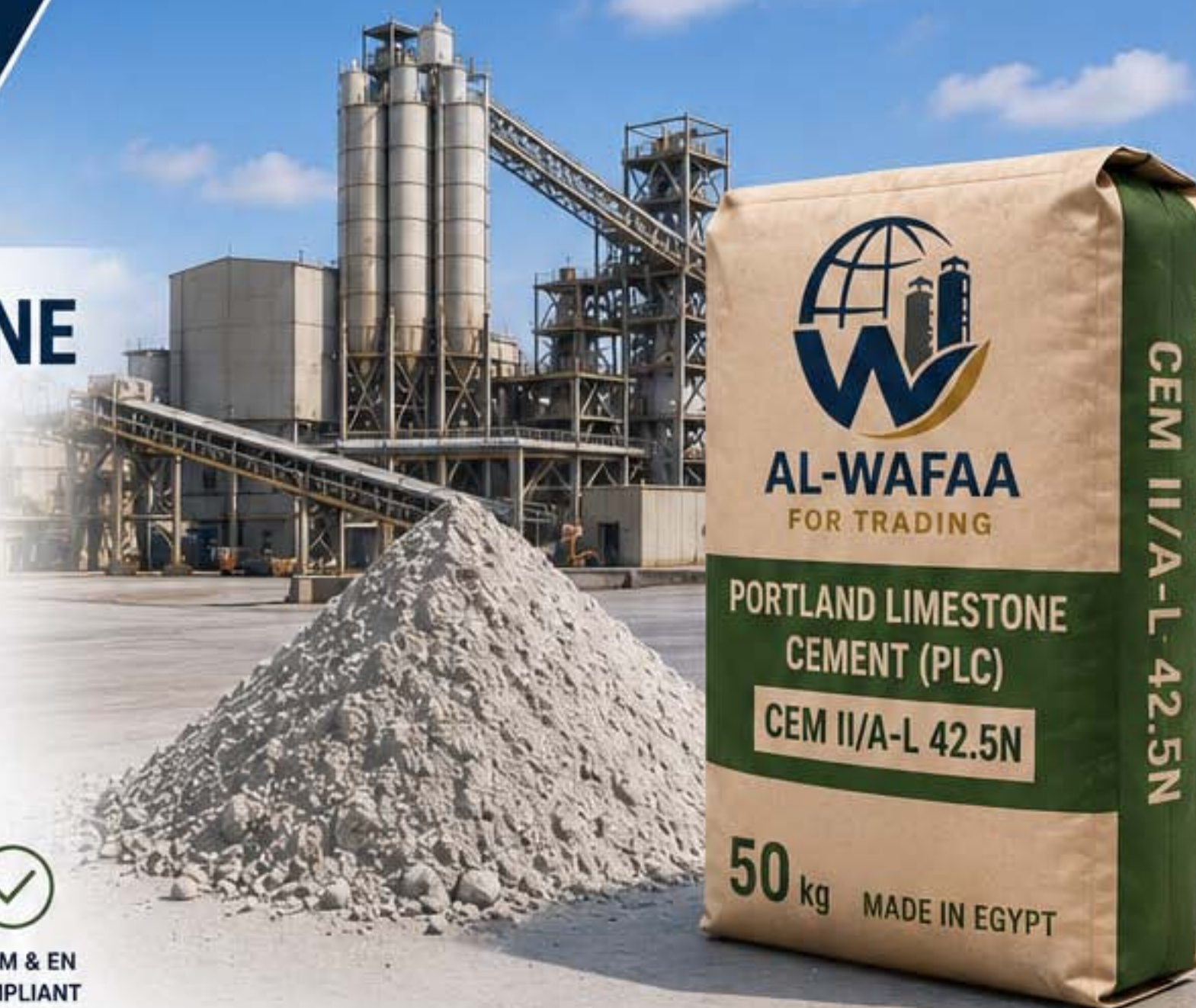
HIGH
PERFORMANCE



IMPROVED
WORKABILITY



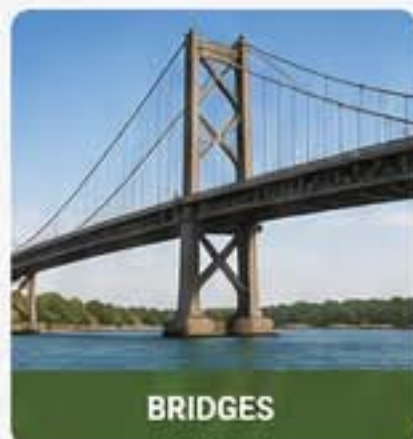
ASTM & EN
COMPLIANT



APPLICATIONS



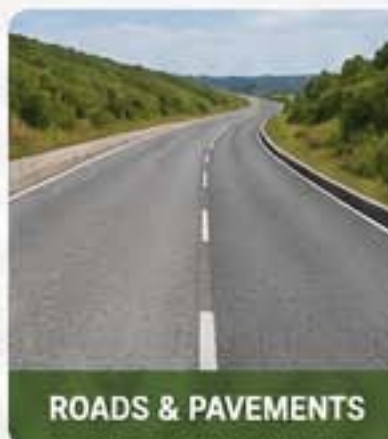
BUILDINGS



BRIDGES



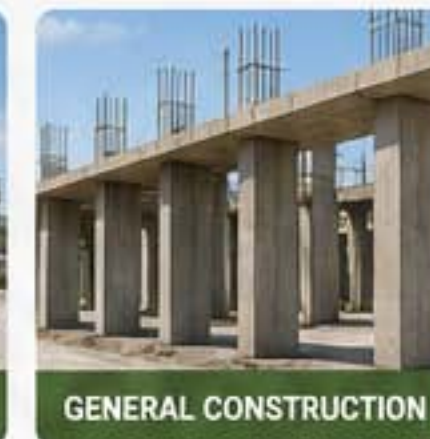
PRECAST ELEMENTS



ROADS & PAVEMENTS



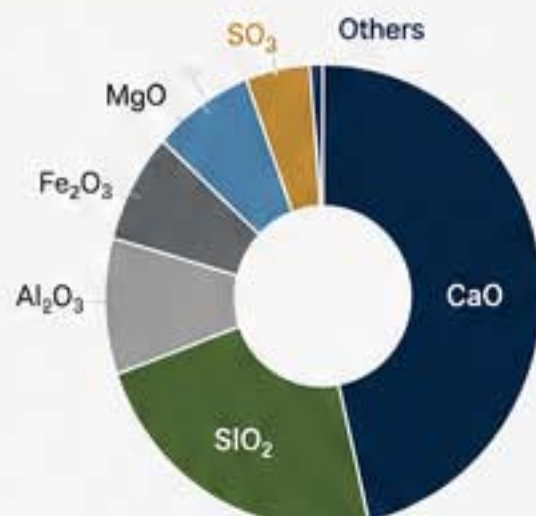
READY MIX CONCRETE



GENERAL CONSTRUCTION

TYPICAL CHEMICAL COMPOSITION (%)

CaO	60.0 – 64.0
SiO ₂	18.0 – 21.0
Al ₂ O ₃	3.0 – 5.0
Fe ₂ O ₃	2.0 – 4.0
MgO	1.0 – 2.5
SO ₃	2.0 – 3.5
Na ₂ O _{eq}	≤ 0.60
Cl ⁻	≤ 0.10
Loss on Ignition	≤ 4.0
Insoluble Residue	≤ 1.5



Limestone addition (6% – 20%) improves performance and sustainability.

PHYSICAL & MECHANICAL PROPERTIES

PROPERTY	REQUIREMENT (EN 197-1 CEM II/A-L 42.5N)	TEST METHOD
Compressive Strength (2 Days)	≥ 20 MPa	EN 196-1
Compressive Strength (28 Days)	≥ 42.5 MPa	EN 196-1
Initial Setting Time	≥ 60 min	EN 196-3
Final Setting Time	≤ 600 min	EN 196-3
Soundness (Le Chatelier)	≤ 10 mm	EN 196-3
Fineness (Blaine)	≥ 320 m ² /kg	EN 196-6
Density	2.90 – 3.10 g/cm ³	EN 196-6
Expansion in 1% Na ₂ SO ₄	≤ 0.10 %	EN 196-3

BENEFITS

- ✓ Reduced CO₂ footprint
- ✓ Lower heat of hydration
- ✓ Improved workability
- ✓ Enhanced durability
- ✓ Economical and sustainable
- ✓ Excellent long-term strength