

Alpha Green

Concrete with a carbon conscience.

Grades	CO ₂ Reduction	Lead Time	EPD	Certifications
M20-M60	Up to 50%	Standard	Per mix	LEED v4.1, IGBC

Key Features

- Up to 50% lower CO₂ vs conventional.** Verified through EPD per mix design. Reference: 350 kg CO₂/m³ for OPC concrete vs 175 kg CO₂/m³ for Alpha Green M40 (50% GGBS).
- Up to 60% SCM replacement.** GGBS up to 60%, Fly Ash up to 40%, depending on grade and application. Tested mix designs verified for performance.
- Verified EPD certificate.** Third-party certified per ISO 14025 and EN 15804. Carbon footprint, primary energy, water usage, waste generation all documented.
- LEED v4.1 contributing.** Contributes to MR Credit 5 (Building Product Disclosure & Optimization) and IEQ optimization. Documentation provided for LEED submission.
- IGBC compliant.** Designed for IGBC Green Building rating system. Documentation for IGBC submission. Project-specific certification support.
- No performance compromise.** Equivalent strength to conventional concrete. Equivalent or better durability. Equivalent workability with adjusted admixtures. Tested across all grades.

Technical Specifications

Parameter	Value
Compressive Strength (28-day)	20 – 60 N/mm ² (per grade)
Cement Type	OPC 53 + GGBS or PPC + Fly Ash
Cement Content (clinker only)	140 – 280 kg/m ³
Total Cementitious Content	320 – 440 kg/m ³
Mineral Admixture	GGBS 30-60% or Fly Ash 25-40%
W/C Ratio	0.38 – 0.50
Coarse Aggregate	20mm + 10mm crushed granite
Fine Aggregate	M-sand or river sand
Chemical Admixture	PCE superplasticizer (compatible with high SCM)
Slump	100 – 180 mm (per application)
Setting Time (initial)	5 – 7 hours (slower than OPC)
Strength Gain Period	Continued to 56-90 days
CO ₂ Footprint (per m ³)	175 – 300 kg CO ₂ /m ³ (vs 350 conventional)
Water Reduction	10-15% lower than conventional concrete
Code Reference	IS 456:2000, IS 12269, IS 12330, IS 1489
EPD Standard	ISO 14025, EN 15804, IS 17628

Applications

LEED & IGBC Certified Projects. Buildings pursuing LEED Silver, Gold, Platinum or IGBC ratings. Mandatory for premium green ratings.

ESG-Focused Developers. Real estate companies with ESG commitments. Investor-driven sustainability targets. Public reporting requirements.

Government & Infrastructure. Public projects with sustainability mandates. Smart city infrastructure. Urban renewal.

Premium Residential & Commercial. Eco-conscious residential developers. Green-certified office complexes. IT parks with sustainability positioning.

Available Grades

M20 — Standard residential, foundation, lean concrete.

M25 — Standard structural, residential RCC.

M30 — Premium residential, low-rise structural.

M35 — Mid-rise structural, commercial.

M40 — High-rise structural, premium commercial.

M45 — Premium high-rise, congested reinforcement.

M50 — Specialty high-rise, premium projects.

M60 — Custom design, project-specific.

Disclaimer: The specifications shown represent typical ranges. Actual mix designs are project-specific and subject to verification by Alpha Concrete's QC team. Quoted specifications must be confirmed against actual lab results before commercial commitment.