

Alpha Flow

Self-compacting concrete that flows where vibration can't reach.

Grades	Slump Flow	Lead Time	V-Funnel	Certifications
M30-M70	600-750mm	5-7 days	8-12 sec	BIS, IS 456, EFNARC

Key Features

- Self-compacting (no vibration).** Flows under its own weight. Fills congested rebar zones. Self-levels with smooth surface. No mechanical compaction required.
- Slump flow 600-750mm.** Verified per EFNARC SCC 1, 2, or 3 class. Project-specific slump flow targets defined by application.
- V-funnel time 8-12 sec.** Verified flowability without segregation. Standard test per EFNARC. Result on every batch ticket.
- L-box passing ability ≥0.85.** Verified passing through congested rebar (3-bar L-box test). Demonstrates concrete fills behind tightly spaced bars.
- High powder content with VMA.** 500-550 kg/m³ powder (cement + SCM + filler). Viscosity-modifying admixture prevents segregation. Stable rheology.
- Complex geometry capable.** Architectural columns with patterns. Curved walls. Decorative surfaces. Prefabricated elements with intricate details.

Technical Specifications

Parameter	Value
Compressive Strength (28-day)	30 – 70 N/mm ² (per grade)
Cement Type	OPC 53 with GGBS or fly ash
Total Cementitious Content	480 – 560 kg/m ³
Filler Material	Fly ash, GGBS, limestone powder
Powder Content (cement + SCM + filler)	500 – 580 kg/m ³
W/Powder Ratio	0.32 – 0.38
Coarse Aggregate (max size)	12 – 16 mm (smaller for SCC)
Fine to Coarse Aggregate Ratio	Higher than conventional (sand-rich)
Chemical Admixture	PCE superplasticizer + VMA
Slump Flow	600 – 750 mm
V-Funnel Time	8 – 12 seconds
L-Box Passing Ratio	≥ 0.85
Segregation Index	< 15%
T50 Time	2 – 5 seconds
Setting Time (initial)	4 – 6 hours
Code Reference	IS 456:2000, EFNARC guidelines, IS 10262:2019

Applications

Architectural Columns & Walls. Exposed concrete walls, decorative columns, sculptural elements. Where finish quality is non-negotiable.

Congested Reinforcement Zones. Beam-column junctions, transfer slab edges, dense shear walls. Where vibration cannot reach all areas.

Prefabricated & Precast Elements. Casting yards. Prefabricated façade panels. Mass-produced architectural elements. Mold-cast elements requiring perfect surface.

Decorative & Specialty Elements. Sound-absorbing walls. Acoustic panels. Sculpted public spaces. Where concrete is the visual statement.

Available Grades

M30 — Decorative walls, light architectural features.

M35 — Standard architectural columns and walls.

M40 — High-rise transfer slabs in congested zones.

M45 — Premium architectural elements with high strength.

M50 — Structural elements with congested reinforcement.

M60 — Specialty high-strength SCC for demanding applications.

M70 — Project-specific custom design (trial mandatory).

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.