

Product Description

TechnoCrete GF100 is based on a blend of specially selected organic polymers. It is supplied as a dark brown liquid, instantly dispersible in water.

TechnoCrete GF100 disperses the cement particles effectively in the concrete mix and hence exposes a larger surface area to the hydration process. This effect is used either to increase the strength or to produce high workability concrete or reduce cement content of concrete or to retard the setting time of concrete.

Standard Compliance

TechnoCrete GF100 complies to IS:9103 : 1999 as a water reducing admixture. It also complies with IS 2645 : 1975 and BS 5075 Part 3 and ASTM C494 Type F.

Uses

- To produce high workability concrete without loss of strength.
- To promote high early and ultimate strengths by taking advantage of water reduction whilst maintaining workability.
- To produce high quality concrete of improved durability and impermeability.
- At higher dosages, advantages can be taken of the retardation of initial setting time of concrete especially in large pours.

Advantages

- Pumpability: Increased workability provides easier and quicker placing and optimum compaction. Aids concrete placement by pump.
- Increased strength: Provides higher strength without increase in cement content or reduction in workability. Ideal for precast concrete production.
- Improved quality and cohesion: Reduce rate of workability loss normally associated with superplasticiser. Reduces shrinkage cracking because of lower water cement ratio. Makes the concrete water impermeable.
- Bleeding and segregation minimised: Improves durability and impermeability of concrete.
- Chloride free: Safe in prestressed concrete production.

Technical Properties

Specific Gravity	1.20 (at 27°C)
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Chloride Content	Nil to IS 456
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Setting times: At higher dosage levels without water reduction, retards setting times 1 - 2 hours approximately.

Air entrainment: Approximately 1% additional air is entrained.

Compatibility: Can be used with all types of Portland and slag cement except High Alumina Cements. TechnoCrete GF100 is compatible with other Techno Greens admixtures but it is recommended that admixtures if used in combination are added separately.

Workability: TechnoCreteGF100 can be used to produce collapse slump concrete without reducing the water content. However, minor adjustments to mix design may be required to produce flowing concrete to prevent bleeding and segregation.

Compressive strength: Substantial reduction in the water content (10-20%) can result in high early compressive strength for a constant slump.

Permeability: Reduced water/cement ratio increases density and improves impermeability. Improved workability facilitates easy placing and good compaction.

Cohesion/segregation: The possibility of bleeding and segregation will be reduced because of increase in cohesion. A uniform close textured surface without sand runs or voids can be produced.

Pumpability: TechnoCreteGF100 will aid pumping of concrete by providing lubrication to cement particles and reducing line friction.

Application Instructions

The optimum dosage of TechnoCrete GF100 should be determined by site trials with a specific concrete mix to facilitate measurement of effects of workability and strength gain.

As a guide, the rate of addition should be in the range of 500ml to 1.5 litres/100 kg cement for high workability concrete.

Dispensing: The correct quantity of TechnoCrete GF100 should be used by means of a dispenser. The measured quantity of TechnoCrete GF100 should be added along with the gauging water in the case of batching plants.

Alternatively, correct dosage should be used with about 20% of the total water in the last phase after the mix has been prewetted.

Overdosing: The overdose of double the recommended dosage can result in increased acceleration of setting time and additional air is entrained which may lead to slight loss in strength.

The ultimate strength of the concrete could be increased if advantage is taken of the increased workability by reducing water.

Curing: Normal curing methods such as water ponding/ spray or wet hessian must be used. Where water curing is a problem, efficient curing can be achieved by using TechnoCure WB spray applied curing membrane

Packaging

TechnoCrete GF100 is supplied in 250kgs carboys

Shelf Life

TechnoCrete GF100 has a shelf life of 12 months from the date of manufacture provided the temperature is within the range of 20°C to 40°C. If the temperature range is exceeded in any respect, advice should be sought from La Greens. It is recommended that the drums be stored in shade.

Health & Safety

TechnoCrete GF100 is non-toxic, non-flammable and splashes to the skin should be washed with copious amounts of water. If contact with eyes occurs, wash well with water immediately and seek medical advice.

Fire

TechnoCrete GF100 is non-flammable.

Additional information

The Techno Greens range of associated products includes high strength cementitious, epoxy grout, polyester resin based mortar for rapid presetting of steel shims to level or for direct bedding of small base plates; Resin Anchoring systems for same day anchoring of bolts in drilled holes in concrete or rock.

Also available a range of products for use in construction; viz., curing compounds, release agents, flooring systems, repair mortars, sealants and waterproofing materials.

Separate datasheets are available on these products release agents, flooring systems and repair mortars.

Important: Technokem products are guaranteed against defective materials and are sold subject to its standard terms and conditions of sale. It is the Customer's responsibility to satisfy themselves by checking with the Company whether the information is still current at the time of use. The customer must be satisfied that the product is suitable for the use intended. All products comply with the properties shown on current Technical Literatures. However, Technokem does not warranty or guarantee the installation of the products as it does not have any control over installation or end use of the product. All information and particularly the recommendation relating to application and end use are given in good faith.

For Complaints/Suggestions:

Please write to our Customer Care Executive at
TechnoKem Manufactures of Construction Chemicals

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