HIPPO CHEM

Microsilica Super Gel

Microsilica Super Gel is an advanced and powerful product among superpozzolanic microsilica products. It has been formulated and produced with compounds such as polycarboxylate ether and silica fume as its main components, supplemented by others such as fillers, waterproofing materials and polypropylene fibers. Microsilica Super Gel has a stronger water-reducing capability than other microsilica products. Adding this material achieves the desired workability and increases slump, which improves the rheological properties of fresh concrete; the hardened concrete also gains more favorable mechanical properties. The higher fluidity of Microsilica Super Gel allows the silica fume, catalysts and water-repellent materials in the product to flow more effectively in the concrete paste and create a better homogeneous paste texture which, after hardening, has high density and cohesion and low permeability. The use of this product also prevents bleeding and segregation of the concrete aggregates and increases the compressive, tensile and flexural strengths of concrete.

Fiber-reinforced Microsilica Super Gel

Conforms to ASTM C1240-05, BS 1881-124:2015 and ASTM C494.

Properties and benefits:

- This material has the properties of both a plasticizer and microsilica in concrete.
- Reduces the permeability of concrete and increases its compressive strength and abrasion resistance.
- Reduces cement consumption and increases the slump of concrete.
- Very easy to handle, store and use, and suitable for long-distance concrete transport.
- Allows the concrete mixing water to be reduced by nearly 30% and lowers concrete production costs.

Applications:

- Production of high-strength and waterproof concretes
- Concretes resistant to environmental corrosion
- Concrete for bridges, water reservoirs, dams, jetties, etc.

Method of use: The gel can be added to the concrete after thorough mixing, or dissolved in the concrete mixing water and then added to the dry components of the concrete.

Note: When using this material, reduce the water-to-cement ratio by 5% to 15% and apply a water-to-cement ratio of 0.4.

Dosage: The consumption rate is determined by site tests, depending on the type of cement, the slump and the final strength of the concrete. Under normal conditions, however, the dosage is 2 to 8 percent of the cement weight.

Physical and chemical specifications:

Density: 1.35 g/cm³
Chloride ion: None
Physical state: Thick slurry
Color: Gray
pH: About 7
Solubility: In water

Packaging:

25 kg pail

Storage period and conditions:

Shelf life is six months in the original packaging when stored at a temperature of +10 to +30 °C, protected from cold and frost, heat, and direct or prolonged sunlight.

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