

Description:

Power Gel contains microsilica and a highly effective polycarboxylate-based superplasticizer. This combination reduces the water content in concrete while enhancing its strength, making it suitable for special concretes and specific environments. The product is available in normal, fast-setting, and slow-setting types. A distinctive feature is its ability to extend the workability time of fresh concrete.

Standards:

- ASTM C1202
- BS EN 12390-8
- BS 1881-122

Applications:

- Production of high-strength concrete exposed to severe dynamic loads.
- Production of impermeable and durable concrete in environments exposed to aggressive chemical ions.
- Production of reinforced and non-reinforced concrete.
- Production of concrete for various structures such as dams, water treatment plants, water channels, and bridges.
- Production of high-strength concrete to reduce structural dimensions.

Properties and Effects:

- Reduces water-to-cement ratio.
- Allows for at least 20% reduction in cement content.
- Increases concrete fluidity and workability.
- Enhances compressive, flexural, and tensile strength.
- Enables early compressive strength.
- Facilitates pumping and reduces wear on concreting equipment.
- Eliminates concrete permeability.
- Increases concrete durability.

- Improves abrasion resistance.
- Reduces risk of cracking.
- Minimizes damage from delayed concrete curing.

Dosage:

Dosage is between 1 to 3 percent of the cement weight (i.e., 1 to 3 kg per 100 kg of cement). The exact amount should be determined through lab tests based on climate conditions and the types of sand and cement used.

Application Method:

Power Gel can be added in batching or directly into the truck mixer. For optimal results, stir the product thoroughly until uniform and add in several steps into the concrete mix.

Important Notes:

Adjust the mixing water volume according to the dosage of this product. Do not use dried or expired materials.

Physical and Chemical Properties:

- Color: Gray
- Physical Form: Gel-like liquid
- Specific Gravity: 1.4 g/cm³
- pH: Approx. 10
- Chloride Ion Content: None

Storage:

- Conditions: Store in a dry, covered area.
- Shelf Life: 12 months in original packaging.
- Packaging: 20 kg containers and 250 kg drums.

Health and Safety:

Do not ingest this product. Avoid prolonged skin contact. In case of skin contact, wash thoroughly with water.

**بتن شیمی**

خاورمیانه

**BETON
CHIMIE****ISO 90001 : 2015**

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