

ULTRA+[®]

Silica Fume Gel



RAMKA
CONSTRUCTION
CHEMICALS

ULTRA+[®] combines silica fume with carboxylate plasticizers to improve concrete durability. It increases cohesion in the fresh concrete and mortar, reduces permeability and produces a highly dense matrix that improves resistance to aggressive ions.

Guideline for Use

ULTRA+ may be added to fully mixed concrete in the truck mixer. For improved dispersion, it may instead be blended with part or all of the mixing water before the initial mixing process.

Dosage

An average dosage of 5% by weight of cement is stated. The exact dosage is project-specific; a higher dosage may be required where greater density and lower permeability are required.

Applications

- High-strength concrete (HSC)
- Highly dense, low-permeability concrete
- Heavy-traffic concrete exposed to high loads
- Watertight concrete for pools and similar structures
- Structures exposed to repeated freeze-thaw cycles
- Urban and marine structures such as bridges, parking structures and power plants

Approvals / Standards

- ASTM C1202
- BS 1881-122
- INSO 2930
- BS EN 12390-8

Advantages / Benefits

- Fills concrete pores and voids
- Improves concrete strength properties
- Improves durability by reducing the water-cement ratio
- Facilitates pumping and reduces damage to placing equipment
- Supports economical mix designs under impact and dynamic loading
- Improves concrete paste cohesion
- Increases compressive and abrasion resistance
- Promotes early compressive strength
- Helps prevent thermal and shrinkage cracking

Storage

+10°C to +30°C; store in dry conditions away from direct sunlight.

Packaging

22 kg pail

Shelf Life

1 year from the date of production in the original packaging.

Health and Safety

- Do not swallow and avoid contact with the eyes.
- In case of accidental contact with the skin or eyes, rinse immediately with plenty of fresh water.
- If swallowed, seek immediate medical attention.
- Refer to the Material Safety Data Sheet (MSDS).
- Non-flammable.

Basis Of Data

Product Information

chemical_base	Polycarboxylate ether
density	1.45±0.05 g/cm ³
chloride_ion	None



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