

Supermicrocem™ GP

Single component, highly durable, shrinkage compensated, micro-cement and mineral based injection slurry



The Construction Alchemists

Description

Supermicrocem™ GP is a micro-fined cementitious powder, with special additives, which forms a very fluid slurry that can be injected in micro capillary cracks or cavities. It has very high mechanical stability, with no shrinkage and bleeding. It prevents corrosion stresses in pre-stressed cable cavities. It does not contain expansive metallic components.

Features & Benefits

- Optimized water cement ratio, with high fluidity
- Shrinkage compensation, volumetric stability
- No bleeding
- Very high mechanical stability
- Pressure grouting of fine cracks
- Excellent adhesion to reinforcing steel and concrete
- Long open time and workability time
- Excellent anti-corrosion properties due to the presence of high pH

Primary Application

Supermicrocem™ GP is recommended for repairing ducts/tendons in prestressed concrete, cavities, grouting of porosities and sealing of cracks in concrete structures, walls and stones, etc.

Technical properties

Water powder ratio	0.47
Fresh Wet Density	1850 to 1950 kg/m ³
Fluidity in B4 cup	70 seconds
Fineness	Blaines not less than 5000cm ² /g
pH	≥ 12.5(Alkaline)
Min. Flexural Strength @ 3 days @ 7 days @ 28 days	2.5 MPa 3.0 MPa 4.5 MPa
Min. Compressive Strength @ 3 days @ 7 days @ 28 days	30 MPa 40 MPa 50 MPa

Dimensional stability : Supermicrocem™ GP has been designed with a potential expansion of 0.2 to 0.5mm/m², providing there is no loss of water due to absorption or evaporation. The dimensional stability is exhibited both in plastic state and hardened state.



Talrak Construction Chemicals Pvt. Ltd.

An ISO 9001:2015 Certified Company

Works:

Plot No. 115-A, 1st Phase. Harohalli Industrial Area,
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Specification Clause

Supermicrocem™ GP is a micro-fined cementitious powder which is highly durable, shrinkage compensated, micro-cement and mineral based injection slurry which forms a very fluid slurry that can be injected in micro capillary cracks or cavities. The compressive strength of the cured material shall not be less than 45MPa at 28 days and flexural strength of 4MPa at 28 days.

Application Instruction

- Start the initial mixing with a water quantity equivalent to a water/powder ratio of 0.47. Additional water may be added such that the total water/powder ratio does not exceed 0.50. Continue the mixing process for 5-6 minutes until all lumps are disappeared, and a homogeneous mix is obtained.
- The mixing time can be reduced if turbo-mixers, or high speed mixers are used.
- The slurry will remain pumpable for 1hour at normal ambient temperature, not exceeding 30°C.
- Saturate the cavity, joint, or discontinuation with water (starting some time before the injection, so that no free water is present anymore to block the penetration of grout and also to avoid poor strength build up) in order to reduce the absorption of the slurry by the substrate, causing decreased flowing properties.
- It is advisable to keep the fresh application moist for at least 24 hours, after grouting.

Estimating

Packaging

Supermicrocem™ GP is supplied in 20kg HDPE bag.

Yield

20kg of Supermicrocem™ GP will yield ≈15.0ltrs of mixed grout.

Storage

Supermicrocem™ GP has a shelf life of 6 months if kept in dry store in original, unopened containers. If stored at high temperature and/or high humidity conditions the shelf life may be reduced.

Precautions

Health & Safety Instructions

Supermicrocem™ GP has no specific health hazards; it is non toxic but should not be ingested. Any eye contamination must be flushed with clean water and medical advice should be sought.

Important note :

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