



Hydratac 500

Expanding Grout Admixture and Injection Aid (powder form)

Description

Hydratac 500 is an expansion grout admixture and injection aid that works by generating micro-bubbles that cause the cement mixture to expand during the hydration process before the initial set. This results in a volume expansion as also a free flowing mix that will not segregate as water/cement ratio may be reduced.

Object

- Cable-ducts in post-tensioning systems
- Bearing plates
- Tunnel linings
- Rock and soil linings
- Jointing of pre-cast units
- Patching of defects in concrete

Advantage

- Increased flow-performance with low w/c ratio that facilitates placement or injection of grouts and mortars
- Increased compressive strength
- Increased gaseous expansion in wet volume mix thus providing for complete filling of voids and in tight places under machinery and generally compensating for plastic shrinkage and settlement in cementitious grouts
- Reduces bleeding and segregation
- Free from chloride and thus without corrosive effects
- Non-metallic and thus with no corrosion or staining due to rust expansion of grouts and mortars

Instruction for Use

Powder form, introduced to mix generally as 0.5-1% in relation to weight of cement; For best results, use a mechanically powered grout mixer. A low speed electric drilling machine with suitable paddle is recommended so that the introduction of unnecessarily big volumes of air is avoided. Labor, machines, materials must all be available to ensure a continuous placement of materials. The selected water content should be measured up accurately and poured into the mixer. Slowly add sand (and fillers and aggregates where required) together with the measured quantity of Hydratac 500. Mix continuously for about 5 minutes so that a smooth consistency is obtained.

Mix proportions for very smooth mixes (cable-ducts in post-tensioning systems, etc):

- 50 kgs of cement
- 250 g. Hydratac 500
- 15-20 L. of water
- Yield 0.037 m³

Mix proportions for the grouting of machine foundations:

- 50 kgs of cement
- 60 kgs sand 0-3 mm
- 250 g. Hydratac 500
- 15-22 kgs of water depending on flow characteristics required
- yield 0.057 m³

For concrete mixes, use 0.5-1% (= 0.5-1 kgs) of Hydratac 500 per 100 kgs of cement; Generally, Hydratac 500 is a product for specialist enterprises working with pre-stressed concrete, post-tensioning systems, grouting including injection grouting. Properties of the final mix are significantly influenced by the skills applied when mixing.

The final properties of the mix are similarly influenced by the quality of the sand fillers and aggregates. Suitable fillers available from ACT (Thailand) Co., Ltd.

All exposed areas of the grout must be very thoroughly cured with water, preferably covered by plastic membrane sheets for a period of 3-4 days.

All areas of application where grouts or mortars that include Hydratac 500 are to be used must be thoroughly cleaned and free from oil, other stains and loose particles. Hardened concrete surfaces must be pre-wetted.

If in doubt and in order to achieve the best results, consult ACT Technical Services

Effect on Overdosing

This will generally cause an increase in expansion with subsequent settlement later as also a frothing on surface.

Characteristics

| | |
|---------------|--------------|
| Appearance: | Brown powder |
| Bulk density: | 0.8 kg/litre |

Packing

250 g. or 25 kg. bag.

Storage

Store under dry conditions and in unopened containers, not below 5 °C. Do not expose to strong sunshine. Keep well away from open flames.

Precaution

Non-toxic. If Hydratac 500 or the final mixed materials come in contact with skin, wash off with water. If eye-contact, rinse with plenty of clean water without rubbing and seek medical advice.

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