

CIMENT FONDU

Additive for Fast-Curing Cement Grout Mixes

Description

Multiurethanes CIMENT FONDU consists mainly of calcium aluminates (CaO & Al_2O_3) and other minor ingredients. This product is typically used in refractory applications where high temperature resistance is required, as well as applications that require corrosion resistance.

For mining and heavy civil grouting applications, it is used in conjunction with Type GU, Type HE and other similar cements for setting drill casings or other specific applications where rapid strength development is required to reduce delay time before re-drilling can proceed.

By comparison, cement Types GU and HE consist mainly of calcium silicates (CaO & SiO_2) and other minor ingredients and typically take several hours to cure to a hardened state.

Advantages

The chemistry involved with curing of cements is quite complex, more so when two different types of cement are blended. A ratio of 75/25 (or 3:1 by weight) Type GU:CIMENT FONDU provides optimum rapid hardening of cement grout with about 15-20 minutes curing time.

A ratio of 80/20 (or 4:1 by weight) Type GU:CIMENT FONDU provides rapid hardening cement grout with about 20-30 minutes curing time. Mix ratios of 85/15 or 90/10 may be used to achieve slower curing times to accommodate various site conditions.

Where to Use

Multiurethanes CIMENT FONDU is used in conjunction with Type GU and Type HE cement in mining projects to set drill casing and grout standpipes where rapid hardening of cement grout is required. In heavy civil applications, the same combinations may be used to seal fractured ground conditions where re-drilling is required to set instrumentation or rock anchors.

How to Use

Mix water and Type GU or Type HE cement in appropriate proportions to create a homogeneous cement slurry using a paddle mix tank, high-shear mixer or colloidal grout mixer. Add CIMENT FONDU to the pre-mixed water/cement slurry. When fast-setting cement grouts are required, a low W:C ratio should generally be used, such as W:C = 0.5 (i.e. 10 L water to 20 kg combined cement). Use of higher W:C ratios will result in longer curing times.

For new grouting projects or applications, start with a ratio of 90/10 (or 10:1 by weight) Type GU:Ciment Fondu, observe rate of curing and adjust mix ratio accordingly.

Limitations

Test batches shall be prepared on the job site to verify cement grout characteristics

Packaging

20 kg plastic pails