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Is Ciment Fondu® approved for CE Marking?

Ciment Fondu® has obtained a certificate of conformity for CE marking in accordance with the relevant norm EN14647 for calcium aluminat cements.

What is the recommended mix design for a Ciment Fondu® concrete?

The dosage of cement should be a minimum of 400kg/m³ and water / cement ratio of 0.40 maximum. For users of sacks detailed instructions are given on the bag. For bulk quantities please contact Kerneos technical staff or your concrete producer.

Can I use any water to make a Ciment Fondu® concrete?

No, it is strongly recommended to use drinking water.

Is it possible to obtain Ciment Fondu® concrete from a Ready-Mix Producer?

Yes it is possible to produce Ciment Fondu® concrete from a batch plant or in a ready-mix truck. The Ready-mix producer will have to take few simple cautions (cleanliness of equipment, drinking water, transport time, etc.).

Can Ciment Fondu® be used without any sand or aggregate?

No, this cement must always be used with aggregates.
Please refer to the instructions on the back of the sack or our practical guide.

What safety precautions do I have to take to use Ciment Fondu®?

It is advised to use gloves and eye protection. See the Safety Data Sheet for more information

Can I use a mortar containing Portland Cement and Ciment Fondu® to render the walls of my chimney?

No. Ciment Fondu® is resistant to high temperatures and thermal cycling with suitable aggregates. But mixed with Portland cements it loses this property.

Is it necessary to use a poker vibrator or equivalent means of compaction to cast Ciment Fondu® concretes?

Yes. Firstly it makes placing of this concrete easier and secondly it enables complete filling of the formwork.

I want to apply a single coat patch repair using a render accelerated with Ciment Fondu®. What advice can you give me to guarantee a uniform colour?

It is advised to add a skim coat of Portland Cement fresh on fresh on top of the accelerated mortar.

Can Ciment Fondu® be placed in cold weather or in a cold room?

Ciment Fondu® concretes and mortars can be used at low temperatures down to -10°C.
The concrete must be mixed at ambient temperature and with non-frozen aggregates.
It is also necessary after placing to prevent it from freezing, either from the cold air or contact with surrounding materials whose temperature is lower than 0°C.
This can be achieved by insulating the surface of the concrete (e.g. with polystyrene).

Can Ciment Fondu® be placed in hot weather?

As with any cement, at temperature above 25°C the working time is shortened.
For this reason, in hot weather, we advise the addition of a retarder.
N.B. Ciment Fondu® chemistry is different from Portland cements and therefore the retarder used should be checked.
Please consult our Technical Department for further advice.

Can Ciment Fondu® concretes & mortars be used in direct contact with drinking water?

No, Ciment Fondu® is not approved for such use.

How should one assemble refractory bricks?

In the same way as standard bricks.
Advice: Soak bricks at least 24 hours in water, then allow to drain before placing.
First firing should be not earlier than 48 hours after completion and the temperature should be slowly increased to allow residual moisture to escape.
Refer to the chapter "High Temperatures".

Can reinforcement be used with Ciment Fondu® concrete?

Yes, by using the same rules that apply to traditional concretes.

Does a lighter colour Ciment Fondu® exist?

Ciment Fondu® is dark grey but we also offer other cements with colours from light grey to white, Secar® 51, Secar® 71 and Secar® 80. Please consult us for the use and specific dosage rates with these products.

Is Ciment Fondu® an acid proof cement?

No, Ciment Fondu® is not acid proof but performs much better than Portland cement solutions, typically against bacterial or acid corrosion down to pH 4. In particular, it is frequently used for the protection of sewerage networks, sea wall defence or for concretes and mortars in agricultural environments. Between pH 4 and pH 3.5, we advise you to use a mortar or concrete made with Ciment Fondu® and Alag® aggregates (see Alag® Product Data sheet).

What are the typical setting times obtained for mortars containing a mixture of Portland cement and Ciment Fondu®?

The setting time, as well as the strength obtained, will depend on the type and source of Portland cement used and the ratio of Ciment Fondu® added.

Indicative setting times are given below: -

- 3 parts of Portland + 1 part Ciment Fondu® is between 10 and 30 minutes.
- 2 parts of Portland + 1 part Ciment Fondu® is between 3 and 10 minutes.

Can I make thin screeds/toppings (< 50 mm) out of Ciment Fondu® concrete or mortar?

It is possible, but special care must be taken. The very rapid hardening is accompanied by a higher rate of shrinkage which may lead to problems like debonding, curling or cracking. Please consult our Technical Dept.

Is the shrinkage of Ciment Fondu® concrete greater than that of Portland cement concrete?

The shrinkage of Ciment Fondu® concrete is similar to Portland cement concrete but most this shrinkage happens considerably faster (within a few days). Therefore, Ciment Fondu® concrete requires closer spaced joints than traditional concrete.