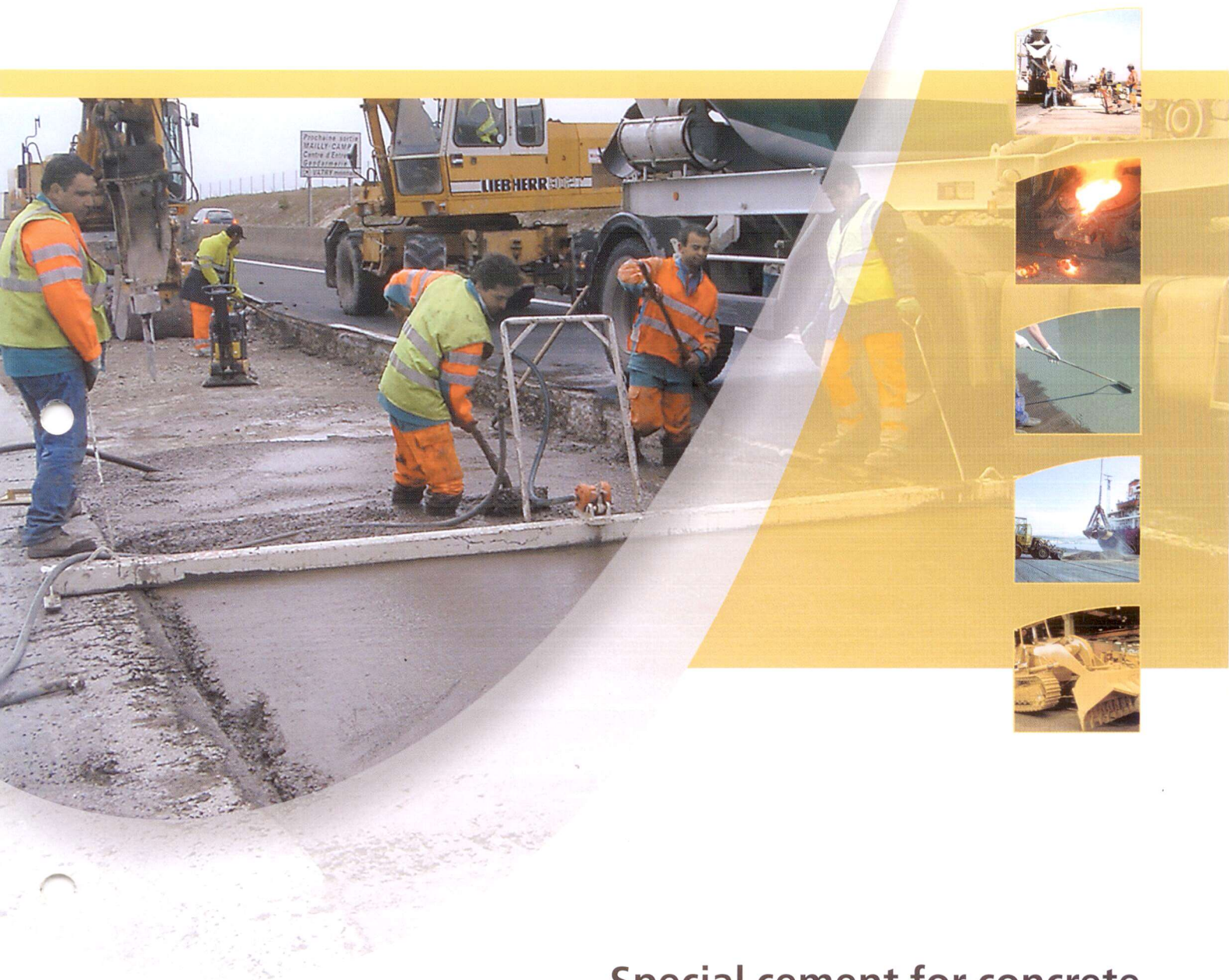


CIMENT FONDU®



**Special cement for concrete
and mortar solutions**

>> Rapid return to service



Rapid hardening: more than 25 MPa in 6 hours

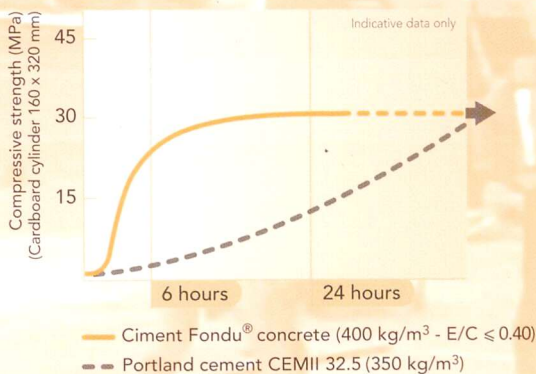
Ciment Fondu® mortars and concretes are very rapid hardening, with a setting time similar to Portland cement. This rapid speed of hardening enables concrete construction which requires fast return to service, within time constraints that cannot be met by conventional concretes, even accelerated concretes.



Rapid drying: residual moisture below 3% within 48 hours

The high reactivity of Ciment Fondu® produces concrete that rapidly attains a residual moisture level below 3% within 2 days. By comparison, traditional concretes take several weeks to achieve such a low value.

This moisture threshold is important as it is often specified as the content required before a floor covering (resin topping, adhesive, parquet) may be applied.



> A specific feature of Calcium Aluminate concrete is the phenomenon of conversion. Only the long term strength – i.e. after conversion – should be used for design purpose.

More information about conversion is given at the end of this brochure and in Ciment Fondu® commercial data sheet.



> Industry:

Floors and slabs covered with resin topping, epoxy, paint, adhesive for tiles.

> Buildings:

Floors and slabs covered with parquet, plastic liner, tiles.



> Pavement repairs:

Roads, airports, car parks.

> Industrial floors:

Shutdown repairs, machine bases.

> Underground works

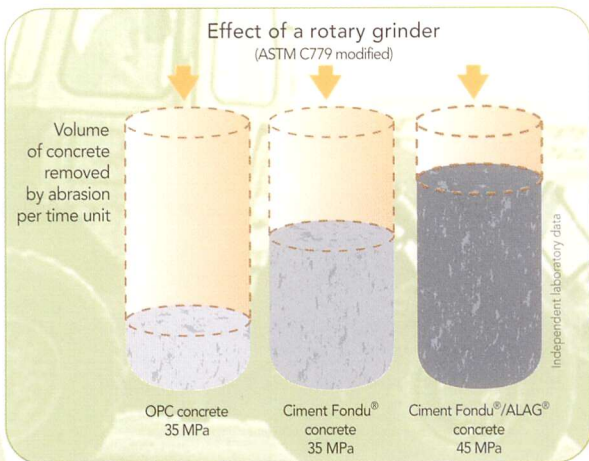


>> Resistance to harsh conditions



Resistance to abrasion

Ciment Fondu® produces concretes with better resistance to abrasion than a Portland cement concrete. Abrasion resistance can be even further enhanced by using hard aggregates. The use of Alag® aggregates with Ciment Fondu® produces concrete with exceptional resistance to abrasion.



> Industry:
Discharge areas, areas trafficked by heavy vehicles, channels subject to abrasion from liquids carrying abrasive particles.

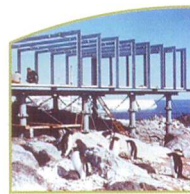
> Hydraulic:
Protection of flood gates, sluice beds, spillways.



Low temperature concreting

Due to the rapid hardening of Ciment Fondu®, the heat released in the first few hours after setting is sufficient to enable concreting in sub-zero conditions, down to -10°C.

Concreting in freezing conditions requires specific caution, more information is given at the end of this brochure.



> Industry:
Floor repairs in cold stores, tunnel freezers.

> Civil engineering:
Work in winter conditions or in mountain regions.





High temperature and thermal shock resistance

The high alumina content and absence of free lime enable Ciment Fondu® concrete to resist extremes of temperature- and repeated thermal shocks. In these applications, the maximum temperature allowed is also function of the aggregate type. The combination of Ciment Fondu® with Alag® aggregates resists temperatures up to 1,100°C.



- > **Metallurgic industries:**
Furnace bases, discharge areas, coke wharfs, incinerators.
- > **Protection from fire:**
Fire training areas, fire training buildings.
- > **Others:**
Rotary furnace linings, liquid gas discharge areas.

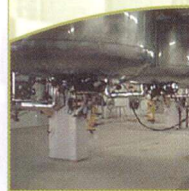


Corrosion resistance

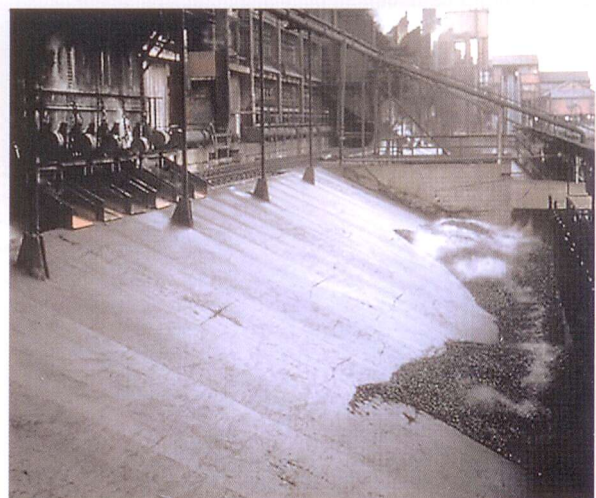
Ciment Fondu® concrete provides excellent resistance to chemical attack from a wide range of aggressive substances including several acids ($\text{pH} \geq 4$), sugar solutions, grease and fats. Ensuring low porosity (low W/C) and using appropriate aggregates further enhances the corrosion resistance.



- > **Industry:**
Floors in chemical and food processing factories, silo lining, settling tanks.



- > **Petrochemical:**
Sulphur pits.
- > **Sewage:**
Protection of sewage pipes, curved channels.
- > **Seawater exposed areas**



>> Properties

Ciment Fondu® conforms to EN 14647 Standard.

It produces concretes combining rapid hardening, good workability and high durability.

Rapid return to service



Rapid hardening

Strength over 25 MPa around 6 hours after casting.



Rapid drying

Residual moisture below 3% within 48 hours.

Resistance to harsh conditions



Abrasion

Excellent abrasion resistance.
Even better when using Alag® aggregates for extreme conditions.



Cold

Installation at sub-zero temperature (down to -10°C).



Temperature

Resistance to extreme temperature and thermal shocks (from -180°C to +1,100°C) using Alag® aggregates.



Corrosion

Resistance to corrosion, including several diluted acids (pH ≥ 4).
Improved resistance when using Alag® aggregates (pH ≥ 3.5).



For more information, visit us on:
www.cimentfondu.com

Our teams at your service around the world

Ciment Fondu® is manufactured according to the latest procedures and technical controls developed by Kerneos industrial and research teams.

Ciment Fondu® is produced and controlled in Kerneos plants within a quality management system that is certified according to ISO 9001

Standard requirements, in order to ensure uniform and regular deliveries around the world.

Ciment Fondu® is supported by the technical, commercial and marketing network dedicated to Technical Concrete applications.