



**HOFFMANN  
GREEN CEMENT**

Catalyst of  
the Carbon  
Transition

**TECHNICAL SERVICE &  
INNOVATION**

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# H-UKR N cement technical sheet

Alkali-activated slag based cement

- Decarbonized cement, 0% clinker
- Carbon footprint reduced by 80% compared to an OPC.
- Made in France

“ THE BEST CO<sub>2</sub>  
IS THE ONE YOU  
DON'T PRODUCE ”

## Domains of use

- Ready-mixed plant
- Construction site concrete
- Precast (with or without heat treatment)

## Applications

- Buildings: walls, floors, posts, beams, superficial foundations, footings, rafts, paving, stairs, double walls
- Roads and public works: curbs, gutters, bases, retaining walls, and acoustic screens.
- Civil engineering: mixing towers and wind turbine foundations, storage silos.
- Exterior landscaping and sustainable cities: decorative, deactivated, draining concretes.

## Properties

- Concrete with a compressive strength class of 16 MPa [N/mm<sup>2</sup>] to 50 MPa [N/mm<sup>2</sup>] (on Cylindrical Concrete Specimens at 28 days)
- Concrete of any consistency class (Slump from 0 to 250 mm and Slump Flow from 350 to 650 mm)
- Workability maintained up to 120 mins

## Assessments

- Under Technical Assessments

### Chemical characteristics (%)

SiO <sub>2</sub>	32.41
Al <sub>2</sub> O <sub>3</sub>	8.41
Fe <sub>2</sub> O <sub>3</sub>	0.39
CaO	36.09
MgO	5.96
SO <sub>3</sub>	0.21
K <sub>2</sub> O	0.92
MnO	0.14
P <sub>2</sub> O <sub>5</sub>	0.01
Cl <sup>-</sup>	< 0.01
S <sup>2-</sup>	0.72
Total alkaline Na <sub>2</sub> O <sub>eq</sub>	7.10

> These values are given for information purposes only. Self-check results are available on request.

### Physical and mechanical characteristics

Density (g/cm³)	2.65
Fineness, specific surface (m²/kg)	531
Heat of Hydration at 41 h (J/g)	177
at 120 h (J/g)	193
Colorimetry (L*)	90

Compressive Strength <sup>1)</sup> in MPa [N/mm²]		
2d	7d	28d
36.7	52.0	63.8

> <sup>1)</sup> According to internal protocol derived from EN 196-1

20°C

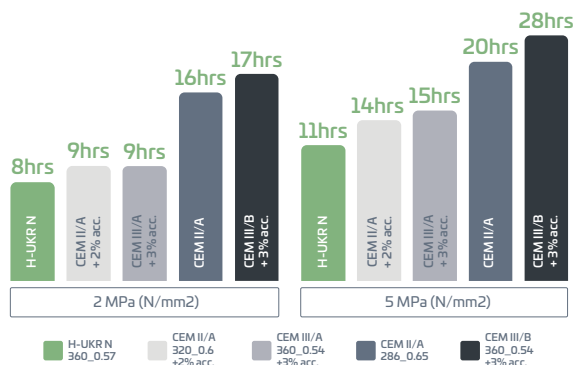
## Maturity level

Results of maturity level studies at a young age of different cements.

In temperate conditions, the behavior of concretes based on H-UKR N cement and accelerated concretes based on CEM II/A (K94% S6%) and CEM III/A (K51% S49%) is similar.

Adding an accelerator to CEM III/B (K34% S66%)-based concrete does not achieve the performance of H-UKR N cement-based concrete.

Note: K=Clinker & S=Slag



## Recommendations for use

- Use clean aggregates, free from organic matter
- Only use admixtures recommended by HOFFMANN GREEN CEMENT
- Take all precautions during horizontal pouring by systematically carrying out a cure. The curing products on the market are suitable. Water curing is prohibited.
- Use appropriate personal protective equipment (PPE): pants, long-sleeved clothing, waterproof gloves, waterproof shoes, safety glasses, etc.

**The shelf life of H-UKR N cement is 24 months**  
(in dry storage conditions).

**Packaging is:**

- in bulk (30-T tank maximum)
- in 1-T big bags
- in 25-kg bags



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