

## Calumex BeliCem

### Calcium Sulfoaluminate Cement



- Higher expansive value
- Green alternative to Portlandcement
- Fast setting and rapid hardening
- High and early strength development
- No loss of strength in time
- Efficient sulfate resistance
- Excellent freeze or thaw performance
- High solubility allows working at low temperatures

Calumex® BeliCem is a basic ground clinker calcium sulfoaluminate – a mix of pure bauxite, limestone and calcium sulfate. After having been burned in a rotary kiln and ground, Calumex® BeliCem becomes a slow reacting cement. It will however react rapidly in the presence of lime and calcium sulfate to form ettringite. This results in either positive expansion or shrinkage compensation in the cement matrix, depending on the applied dosage.

Calumex® BeliCem can be applied as a straight binder or be used in combination with Portlandcement to achieve high early and late strengths, compensated shrinkage and stability over time.

Calumex® BeliCem is an environmentally friendly alternative to Portlandcement and the CO<sub>2</sub> emission during production is significantly lower than is the case with OPC. Furthermore, the calcining temperature and cost of grinding the clinker is considerably lower for Calumex® BeliCem than it is for Ordinary Portlandcement.

#### Chemical Analysis

SiO <sub>2</sub>	:	≤	6	%
Al <sub>2</sub> O <sub>3</sub>	:	≥	45	%
Fe <sub>2</sub> O <sub>3</sub>	:	≤	1.4	%
CaO	:	≥	36	%
SO <sub>3</sub>	:	≤	7.6	%
TiO <sub>2</sub>	:	≤	2.5	%
LOI	:	≤	1	%
fCaO	:	≤	1	%

#### Technical information

Setting Times : (min)

Initial: ≥ 0:45

Final: ≥ 2:25

When mixed with Portlandcement 52,5R at a 1:2 ratio (wcf 0,4), the following early strengths can be achieved:

	6 hours	24 hours	72 hours
Compressive Strength	≥ 18,00	≥ 25,00	≥ 35,00
Flexural Strength	≥ 3,50	≥ 4,65	≥ 4,00

MPa



The information given above is based on our current experiences and knowledge of the product. It gives no guarantee of the eventual result. The customer remains responsible for testing the product before use. Caltra Nederland B.V. cannot be held responsible for possible damage caused by (incorrect) use of its products. For additional information with regard to safe use, please consult the Material safety datasheet (SDS)