



Expanding Agent

C.S.A. Based

- Ye'elemite based expansion
- Shrinkage compensation in OPC systems
- Non-shrink grouts
- Self-levelling mortars
- Rapid repair mortars
- Anchor bolt grouts

Calumex® E.A. is a factory controlled pre-blend of basic Calumex® C.S.A. cement and synthetic anhydrite. It is used as an additive to Portlandcement to achieve either shrinkage compensation or positive expansion, depending on the applied dosage.

The temperature development during hydration caused by the addition of Calumex® E.A. will contribute to strength development in the final mortar. Furthermore, due to the controlled ettringite formation achieved by the combination of Calumex® E.A. with Portlandcement, early strengths will be significantly improved, increasing efficiency in many applications.

The recommended dosage of Calumex® E.A. is a 8-12% replacement of Portlandcement content. Be mindful that an excessive dosing of Calumex® E.A. will lead to positive expansion, which could lead to cracking and would be undesirable for many applications.

Technical information

(The test results given are based on a mixture where 12% of OPC CEM I 52,5R is replaced by Calumex® E.A.)

| | | |
|--|---|--|
| Applied wcf | : | 0,40 |
| Setting times (Vicat) | - | Initial : ~ 2:30 min Final : ~ 4:00 min |
| Temperature development: Achieved after | : | ~ 45°C ~ 15:00 min |

Strength development

(Strength development was tested at a 12% replacement of OPC. In accordance with EN-196-1, 450gr cement was added to 1350gr Normalised Sand)

| | | | |
|-------------|---------|---|--------|
| Flexural | 2 days | ≥ | 6 MPa |
| | 7 days | ≥ | 7 MPa |
| | 28 days | ≥ | 8 MPa |
| Compressive | 2 days | ≥ | 40 MPa |
| | 7 days | ≥ | 55 MPa |
| | 28 days | ≥ | 65 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)