

Technical datasheet

Infracement CEM I 42.5 N-SR 3 MH/LA

Portland cement, sulfate resistant, moderate heat develop., low in alkalis

Composition

SCHWENK *Infracement* is a hydraulic binder according to SS-EN 197-1. The main component of the cement is Portland cement clinker. Additionally, calcium sulfate is added to regulate the setting time and as minor component limestone. The cement has a C₃A content not over 3,0 % according to the standard SS-EN 197-1. The sodium equivalent is not above 0,60 % (SS 134203) and the heat development is below 320 J/g (SS 134202). A tight quality control during the entire production process ensures a product of constant quality on a high level.

Properties

Properties are listed in the table "Typical data", page 2. SCHWENK *Infracement* is low in chromium. By adding a chromate reducing agent to the cement the amount of water-soluble chromium VI is below 2 mg/kg.

Application

SCHWENK *Infracement* can be used for the fabrication of concrete according to SS-EN 206 och SS 137003. Further applications include the use as a binder in ready mixed mortars and in ground stabilization. The cement can be used in constructions and concrete parts where for the binder a low alkali content, moderate heat development and/or sulfate resistance (SR3) is required, for example bridges and building foundations.

Quality assurance

SCHWENK *Infracement* conforms to the requirements stated in SS-EN 197-1, SS 134202 (MH) och SS 134203 (LA) and is subjected to a rigorous quality assurance protocol in our laboratories. Additionally, the cement is regularly controlled by the third-party organization KIWA in Latvia.

Supplier

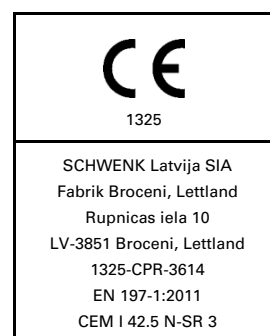
SCHWENK Broceni, Latvia.

Storage and storage time

SCHWENK *Infracement* must be stored in a dry environment and must be protected from moisture. Storage time is at least two months under dry, moisture free conditions.

Certification

The product is controlled and certified (CE marked) according to EN 197-1 by Kiva, Latvia. The product has an approval issued by RISE, Sweden regarding the designations MH/LA based on the evaluation report 1161036-01



Contact

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Typical data

Physical data		Required
Fineness (Blaine)	350 m ² /kg	-
Density	3.16 g/cm ³	-
Bulk density	1.2 g/cm ³	-
Heat development	303 J/g	320 J/g ^A
Setting time	180 min	≥ 60 min ^B
Soundness	1.0 mm	≤ 10 mm ^B
Compressive strength		
1 d	14 MPa	-
2 d	27 MPa	≥ 10 MPa ^B
7 d	43 MPa	-
28 d	55 MPa	≥ 42.5 ≤ 62.5 MPa ^B
Chemical data		Required
Sulfate (SO ₃)	2.7 %	≤ 3.0 % ^B
Alkali content (Na ₂ O _{ekv})	0.50 %	≤ 0.60 ^C
Loss of ignition (LOI.)	1.0 %	≤ 5.0 % ^B
Chloride (Cl ⁻)	0.04 %	≤ 0.10 % ^B
Chromium (Cr ^(VI))	< 2.0 mg/kg	< 2.0 mg/kg ^D
C ₃ A	2.0 %	≤ 3 % ^B

Requirements according to:

^A SS 134202:2021 Cement – Ordinär cement med moderat värmeutveckling (MH-cement) – Krav

^B SS-EN 197-1:2011 Cement – Part 1: Composition, specifications and conformity for common cements

^C SS 134203:2014 Cement – Sammansättning och fordringar för ordinära cement med låg alkalihalt (LA)

^D Directive 2003/53/EC of the European Parliament and of the Council (2003)