



Technical Data Sheet

Product name: **Kraftsement**

Product class: Main class: CEM II/A-M, Portland composite cement.
Strength class: 52.5N, according to standard EN 197-1:2000.

Product description:

Kraftsement has a high overall strength and comparatively very high early strength. It is inter-milled to contain 4% silica fume and 4% processed shellsand, and the water demand is reduced compared with *Portlandsement*. The silica fume gives the cement a strong ability to reduce alkali aggregate reactions and it improves other qualities of the concrete such as strength and permeability. The low permeability imparts properly formulated concrete a strong resistance to deteriorating effects, such as frost, chlorides, sulphates, carbonation and alkali aggregate reactions.

Below are typical composition and property values as well as requirements as and where specified according to EN 197-1:2000 for the cement and its clinker component.

Physical properties:	KRAFTSEMENT	CEM II/A-M	UNIT
Density	3.05		g/cm ³
Fineness - particle surface (Blaine)	4300		cm ² /g
- retained on a 45 µm sieve	5		%
Expansion (Le Chatelier)	1	≤10	mm
Initial setting time (Vicat)	100	≥60	minutes
Compressive strength - after 2 days	29	≥20	MPa
(cf. EN 196) - after 28 days	55	≥52.5	MPa

Chemical composition:

SiO ₂	22.4		%
Al ₂ O ₃	4.5		%
Fe ₂ O ₃	3.3		%
CaO (including free lime)	60.4		%
MgO (based on clinker analysis)	3.2		%
SO ₃	3.6	≤4.0	%
Cl	0.03	≤0.1	%
Na ₂ O-eq. (based on clinker analysis)	1.5		%
Free lime (based on clinker analysis)	1.6		%

Clinker Phases: C₃S: 52 C₂S: 20 C₃A: 7.5 C₄AF: 11.5 (Bogue calculation)

Quality control:

Kraftsement is manufactured under the certification scheme of ISO 9001 and is subject to an independent quality control by the Icelandic Building Research Institute, including an attestation of the CE conformity marking. EC certificate of conformity no.: 1066-CPD-02.

Delivery:

Kraftsement is a stock product available in bulk, in 1,000 and 1,500 kg plastic sacks, and 40 kg paper bags.

The technical information given on this sheet is in accordance with the best of our present knowledge; it is intended for guidance only and is subject to alteration without notice; the quoted property and composition values, being typical ones, are approximate only.

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