

# Anläggningscement

CEM I 42,5 N MH/SR/LA



## CEMENT TYPE AND CEMENT CLASS

Anläggningscement is a CEM I Portland Cement manufactured in Degerhamn. It is adapted for use in solid constructions with demands for moderate heat development, if there is a risk of alkali silica reactions and if there is a demand for higher sulphate resistance. The product's technical data is on page 2 of this Technical Data Sheet.

## STANDARDS AND CONTROL

Anläggningscement satisfies the requirements of EN 197-1 Cement-Part 1: Composition, specifications and conformity criteria for common cements and is in accordance with SS 13 42 02-04 for MH/LA/SR cement.

Anläggningscement is P-marked with certificate number 10 13 01 and CE-marked with certificate number 10 13 21.

## PACKAGING, DISTRIBUTION AND STORAGE

Delivery takes place in bulk, 1,000 kg big bags or in 25 kg bags by Maxit AB. Delivery terminals are listed in our price list.

Storage in an environment that has an element of moist air or direct contact with ground moisture or water damages the cement very quickly (days, weeks). Anläggningscement must be stored in a dry, sealed silo for a maximum of six months after delivery, as the chromate reduction process gradually loses its effect. Cement in sacks must be stored on plastic-coated storage pallets for a maximum of six months after the

packing date. It is always the buyer's responsibility to make sure and be able to show that the storage location is dry and sealed, and that the storage time is observed.

## SPECIAL PROPERTIES

Anläggningscement has a low  $C_3A$  content and satisfies the requirements (i) for sulfate resistance in accordance with SS 13 42 04, ASTM, DIN and BS, (ii) for low-alkaline cement in accordance with SS 13 42 03 and (iii) for cement with moderate heat development in accordance with SS 13 42 02.

## GENERAL TERMS OF DELIVERY

The delivery of Anläggningscement is subject to ABM 92 and CEMENTA's *Special Terms and Conditions*.

## SAFETY DURING HANDLING

All cement must be stored out of the reach of children and is dangerous to consume. Cement in the eyes creates a risk of serious eye damage. Moist cement forms calcium hydroxide, which irritates the skin and the respiratory organs. For complete information and instructions on protection, see the *Material Safety Data Sheet*.

## PRODUCT INFORMATION

For the latest updates to the *Technical Data Sheet*, *Material Safety Data Sheet* and *General Terms of Delivery*, see our website [www.cementa.se](http://www.cementa.se).

## TECHNICAL DATA

### Anläggningscement Cement CEM I 42.5 N MH/SR/LA

Anläggningscement complies with the data below. On rare occasions the values may deviate from the specified ranges or limits.

#### Physical data

Property	Guideline value	Range	Unit	Requirement	Current standard
Blaine fineness	310	± 30	m <sup>2</sup> /kg		
Setting time	150	± 30	min	≥ 60.0	EN197-1
Compressive strength 1 d*	10	± 3	MPa		
Compressive strength 2 d*	20	± 3	MPa	≥ 10.0	EN197-1
Compressive strength 7 d*	35	± 4	MPa		
Compressive strength 28 d*	54	± 4	MPa	≥ 42.5 and ≤ 62,5	EN197-1
Heat of hydration 1 d	170	± 20	kJ/kg		
Heat of hydration 3 d	240	± 20	kJ/kg		
Heat of hydration 7 d	270	± 20	kJ/kg	≤ 290	SS134202
Compact density	3 200	± 20	kg/m <sup>3</sup>		
Bulk density	1 250	± 250	kg/m <sup>3</sup>		
Brightness	21	± 1	%		

\* Measured on standard mortar

#### Chemical data

Property	Limits	Unit	Requirement	Current standard
Loss on ignition	0.5–1.5	%	≤ 5.0	EN 197-1
Insoluble residue	0–0.2	%	≤ 5.0	EN 197-1
Magnesium oxide, MgO	0.8–1.0	%	≤ 5.0	EN 197-1
Sulfates, SO <sub>3</sub>	2.3–2.5	%	≤ 3.5	EN 197-1
Chloride, Cl <sup>-</sup>	0.01–0.03	%	≤ 0.10	EN 197-1
Tricalcium aluminate, C <sub>3</sub> A	1.5–2.5	%	≤ 3.5	SS134204
Alkali, equiv. Na <sub>2</sub> O	0.40–0.55	%	≤ 0.6	SS134203
Water-soluble, Cr <sup>6+</sup>	0–2	ppm	≤ 2 (In accordance with EG 2003/53 and KIFS 2004:6)	

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