



ULTRAFINE 12

PRODUCT INFORMATION

MICROCEMENT

CEMENTA
HEIDELBERGCEMENT Group



CEMENT TYPE AND APPLICATION

Ultrafine 12 is produced at CEMENTA's plant in Degerhamn in special mills developed for the microcement.

Ultrafine 12 is a sulfate resisting, chromate reduced and low alkali Portland cement. It is a product intended for very demanding injections in rock and concrete. The unique combination of the special grinding process and the selected clinker results in a high penetration capacity.

With Ultrafine 12 an injection grout with excellent flow properties can be produced, even at low water cement ratios. The temperature of the grout should be at least +5°C to obtain the desired rheology, penetrability and strength development.



STANDARDS AND CONTROL

Ultrafine 12 fulfills the requirements on chemistry and composition for a sulfate resisting and low alkali Portland cement, (SR3) according to SS-EN 197-1 Cement-Part 1: Composition, specifications and conformity criteria for common cements and (LA) according to SS 134203 Cement-Composition, specifications and conformity criteria for low alkali common cements.



PACKAGING, DISTRIBUTION AND STORAGE

The Product is supplied in 20 kg sacks, in big bags or in bulk. The 20 kg sacks are supplied in unit loads of 48 sacks on pallets completely enclosed in plastic. Due to its high reactivity, Ultrafine 12 is more sensitive than normal cement.

Storage in environments with damp air or direct contact with for example ground moisture damages the cement very quickly causing negative effects on rheology, penetrability and strength development. Since the chromate reduction successively loses its effect the storage time is limited to:

- Maximum 18 months from date of package for unbroken 20 kg sacks.
- Maximum 12 months from date of package for unbroken bigbag.
- Maximum 6 months from date of delivery when stored in a dry and sealed silo.

Additives used together with Ultrafine 12 should be stored and used in accordance with the manufacturer's recommendations.



GENERAL TERMS OF DELIVERY

The delivery of Ultrafine 12 is subject to ABM 07 and Cementa's Special Terms and Conditions.



SAFETY DURING DELIVERY

All cement is dangerous to consume and must be stored out of the reach of children. 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, EPD and other product information, see our website www.cementa.se.



TECHNICAL DATA

Ultrafine 12 fulfills the technical data below. On rare occasions the values may deviate from the specified ranges or limits.

TECHNICAL DATA

Egenskap	Value	Requirement according to SS-EN 197-1
Compact density (kg/m ³)	3100–3200	
Bulk density (kg/m ³)	800–1500	
Specific surface (m ² /kg, BET*)	2200	
Particle size distribution, d ₉₅ (µm)	≤ 12	
Alkali, Na ₂ O-ekv (%)	0,55±0,05	≤ 0,6**
Sulfates, SO ₃ (%)	2,8±0,2	≤ 3,0
C ₃ A, clinker (%)	2,0±0,7	≤ 3
Chloride, Cl ⁻ (%)	0,02±0,01	≤ 0,10
Water-soluble chromium Cr ⁶⁺ (PPM)	0-2	≤ 2***

* The very high specific surface area of Ultrafine 12 is determined using the BET method (nitrogen absorption) since the Blaine method is unreliable in this range of measurement.

** According to SS 134203

*** Clause 47 of Annex XVII of the REACH Regulations



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