



Oreworld trade (Tangshan) co., Ltd.

High Alumina Cement

Description of high alumina cement

High Alumina Cement (HAC, sometimes known as calcium aluminate cement (CAC) or aluminous cement, high alumina refractory cement) is composed of calcium aluminates, unlike Portland cement which is composed of calcium silicates. It is manufactured from limestone or chalk and bauxite.

Application of High alumina cement

There are two distinct ways to use calcium aluminates: as high-performance binders and as mineral reagents in a variety of industries.

As binders, high alumina cement is used in concretes and mortars for specialized applications for their properties of resistance to corrosion, abrasion and heat combined with rapid hardening and the ease of controlling grading variations.

High Alumina cement is also used in combination with other fine components.

Hydraulic binders with new properties are then obtained. In this way, aluminates act as both a complex hydraulic binder and a mineral reagent interacting with the other components in the mix.

As reagents, high alumina cement is found in non-hydraulic systems. This is the case in metallurgical treatments (iron and steel industry, foundry) where specific grades of calcium aluminate are used for their low-temperature melting properties and for trapping molten metal impurities.

Specification of the High Alumina Cement

Items/grade	CA50 F	A600	A700	A900
SiO ₂	≤8.0	≤7.8	≤7.5	≤5.5
Al ₂ O ₃	≥50.0	≥50.0	≥51.0	≥53.5
Fe ₂ O ₃	≤2.5	≤2.5	≤2.5	≤2.5
Specific Surface Area (m ² /kg)	≥300	≥300	≥320	≥350
Initial Setting Time(min)	≥30	≥45	≥60	≥90
Final Setting Time(h)	≤6	≤6	≤6	≤6
Flexural Strength (MPa) 1d	≥5.5	≥6.0	≥6.5	≥8.0
Flexural Strength (MPa) 3d	≥6.5	≥7.0	≥7.5	≥10.0
Compressive Strength	≥40	≥45	≥55	≥72



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(MPa)1d				
Compressive Strength (MPa)1d	≥ 50	≥ 55	≥ 65	≥ 82

High alumina cement package

by 50kgs bag. Store in shady, cool and dry place. Avoid stamp and mix with other substance.