CEMplus

Introducing CEMPlus, Portland Limestone Cement.

The one cement you need for a Successful Project.

Cemplus is a blended cement in which finely ground limestone (up to 15%) is an integral component within the cement.

Cemplus has been designed to have equivalent performance to existing cements and is rigorously tested to verify its performance.

Cemplus is currently manufactured according to both ASTM C595 and BS EN 197-1 : 2011 Standard Specifications for Blended Hydraulic Cements.

SUSTAINABILITY

Growing concerns over the environmental impact of building materials has been a driving force for the adoption of sustainable solutions. Cemplus offers the same level of performance and workability you expect from standard OPC.

Manufactured with quality limestone, it uses less clinker than the traditional manufacturing process and reduces CO2 emissions by 20 percent per metric ton of cement.

PROPERTIES

Our plants have manufactured Cemplus to have equivalent performance compared to the predominant cement produced, based on extensive testing and evaluation. The performance targets encompass both fresh and hardened concrete properties. These properties include durability evaluations in addition to the usual strength requirements.

It has been confirmed in many studies by Holcim and academia that interactions between Portland limestone cement and supplementary cementitious materials (SCMs), such as fly ash and slag cement (ground granulated blast-furnace slag, GGBFS), are essentially the same when compared with OPC.

However, Holcim recommends that all concrete mix proportions be tested for strength and durability properties in a qualified concrete lab.

EXPERIENCE

At Holcim, we have produced Cemplus under then-existing performance standards since 2006.

You can feel good about reducing the carbon footprint in your community. Architects and other designers who are tasked with meeting goals put forth by green rating systems or codes will find Cemplus an especially useful approach to help them achieve a lower carbon footprint for any project.

Specifications

Cemplus Portland limestone cement meets ASTM C595 standard specifications for blended hydraulic cements Type IL **and BS EN 197-1 : 2011** standard specification for blended hydraulic cement for PLC.

Applications

- Ready-mixed concrete
- Architectural & structural
- Precast elements
- Concrete block
- Paving
- Geotechnical

Requirement of ASTM Standard & Typical properties of Lafarge Emirates Cemplus Cement.

Attribute	Requirement of ATSM C 595	Typical Values
Sulfates (as SO3)	Maximum 3.0 %	2.60 - 2.90 %
Compressive Strength: 3 Days	Minimum 13.0 (MPa)	27.0 - 30.0 (MPa)
Compressive Strength: 7 Days	Minimum 20.0 (MPa)	23.0 - 37.0 (MPa)
Compressive Strength: 28 Days	Minimum 25.0 (MPa)	40.0 - 45.0 (MPa)
Initial Setting Time	Min. 45 minutes	100 - 140 min
Final Setting Time	Max. 420 minutes	150 - 190 min
Alkali Equivalent: Na20eq	-	0.48 - 0.54 %
Limestone Addition %	Maximum 15.0 %	8 - 10 %

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