Ultracem

Holcim Ultracem is a General Purpose Portland cement (NZS3122 Type GP) developed to exceed New Zealand's cement standard. Ultracem also complies with EN197-1:2011 CEM I 52.5N and NZS3122 Type HE specifications.

Applications

Ultracem's binding strength and outstanding consistency make it an ideal choice for a wide range of general-purpose concrete applications, including general and specialist construction, mortars, renders, grouts, precast and manufacture of concrete products.

In bagged form, Ultracem also provides consistently good results for projects such as driveways, patios, paths, floors, foundations and footings.

Ultracem remains the cement of choice for projects ranging from the modest to the most notable New Zealand concrete structures.

Typical Analysis

Chemical Analysis (%)

SiO_2:	20.0%	SO_3:	2.8%	Mn_2O_3:	0.25%
Al_2O_3:	4.3%	K_2O:	0.60g	P_2O_5:	0.09%
Fe_2O_3:	2.2%	Na_2O:	0.16%	Cl-:	0.002%
CaO:	64.0%	TiO_2:	0.46%	LOI:	3.2%
MgO:	0.7%	NaEQ:	0.56%		

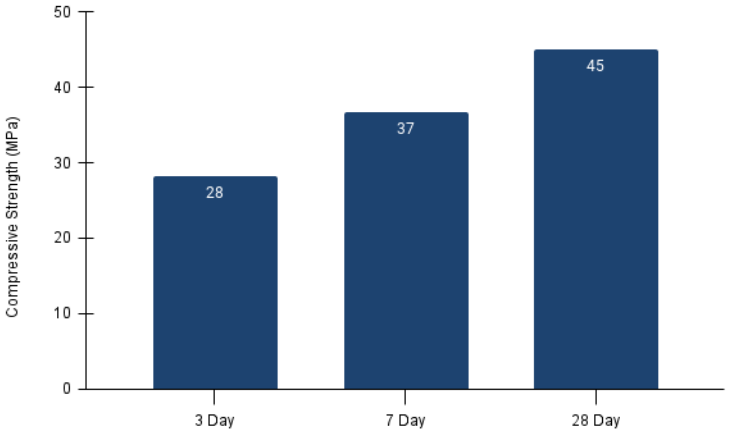
Compressive Strength – Mortar Bar (NZS3122:2009)		**NZS3122:2009 Minimum requirements**
3 Day	37	
7 Day:	50	35 MPa
28 Day:	65	45 MPa

Physical Properties		**NZS3122:2009 Minimum requirements**
Setting Time: Initial : Final:	 120 min 3:00 Hours	 45 Mins (minimum) 6 hours (maximum)
Soundness:	1mm	5 mm (maximum)
Specific Gravity:	3.13	
Fineness – Specific Surface (m^2/Kg):	330	
Finesess – Retained on 45µm Sieve	7.7%	
Normal Consistency:	27.9%	
Peak Temperture Rise:	31.4 °C at 15.9 hours	

Typical Compressive Strength (MPa) - Concrete

Mix Parameters

Water/Cement Ratio	0.53
Cement Content:	350 Kg/m^3
Total Water:	190 Kg/m^3
Slump:	90-150 mm



Mix Quantity guideline (Parts by Volume)

End Use	*Ultracem*	*Builders Mix*	*Sand*	*Added Water**
Paving Cement (Driveways, Floors, Paving)	1	5.5	-	0.50 to 0.66
General Purpose Conrete (Paths, Mowing Strips)	1	7.0	-	0.66 to 0.75
Bedding Concrete (Fence Posts, Clothes lines)	1	8.5	-	0.66 to 1.00
General Purpose Mortar (Masonary Mortar, Wall Plaster)	1	-	3.0 to 4.5	To Suit

*Actual water demand will vary according to nature and moisture condition of aggregates and desired level of workability

Handling, Storage & Safety

Handling & Storage
The shelf life of Holcim Ultracem is dependent on the storage conditions. It is necessary for bagged Ultracem to be stored in dry conditions and protected from rain, dew or any other moisture source.

Ultracem is highly alkaline and is significantly affected by exposure to water.

Availabilty:
Ultracem is available in bulk tanker, 1 tonne bulk bags, aswell as 20 & 40Kg bags.

Safety Datasheet:
Our safety data sheet can be downloaded from our website
https://www.holcim.co.nz

Bulk Density

Aerated (Kg/m^3):	1170
Packed (Kg/m^3):	1420