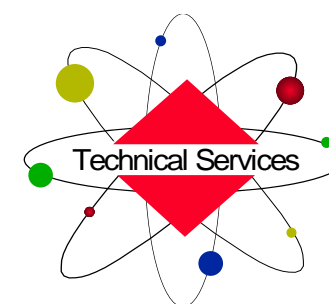




Golden Bay Cement
 Portland Works
 P.O. Box 1143
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 NEW ZEALAND
 PH (09) 432 2656
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TYPE CEM II/A-W 42.5N

Ciment General



Issued to: Export Manager
Vessel: BBC Baltic
Voyage Number: 1001
Code Number: 110915-646-CG

		<u>Test Result</u>		<u>Requirements</u> <u>EN 197-1</u>	
<u>Compressive Strengths</u>					
ISO-CEN Prism	2 Days	18.9	MPa	10.0 Mpa (min)	
	7 Days	31.4	MPa		
	28 Days	55.1	MPa	42.5 Mpa (min)	62.5 Mpa (max)
<u>Physical Properties</u>					
Setting Time Initial		165	minutes	>60 (min)	
Setting Time Final		5:00	hours		
Specific Surface		325	m²/Kg		
Soundness		2		10 (max)	
<u>Chemical Properties</u>					
Insoluble Residue (IR)	(Typical)	8.40	%		
Sulphur Trioxide (SO ₃)		2.39	%	3.5% (max)	
Ignition Loss (LOI)		1.28	%		
Soda Equivalent (Na ₂ O + 0.658 K ₂ O)		0.95	%		
Freelime CaO		1.84	%		
<u>Typical Clinker Analysis Results for the week</u>					
SiO ₂ :		23.04	%		
Al ₂ O ₃ :		4.18	%		
Fe ₂ O ₃ :		2.37	%		
CaO:		66.60	%		
MgO:		1.08	%		
SO ₃ :		0.42	%		
Na ₂ O:		0.30	%		
K ₂ O:		0.54	%		
Cl-	(Typical)	< 0.01	%		
S ₂ -	(Typical)	< 0.01	%		
C ₃ S:		63.3	%		
C ₂ S:		18.3	%		
C ₃ A:		7.1	%		
C ₄ AF:		7.2	%		

NOTE: This product contains a nominal 20% flyash

Typical Properties of Ciment General	
Composition:	
Clinker:	75.0%
Flyash	20.0%
Gypsum	5.0%

The above sample was tested as received in accordance with the current terms of registration and methods stated in NZS 3122:2009 with the exception of;

- Chemical Analysis to ASTM C114:2010

THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL

Jim White
Quality System Co-ordinator

6/10/2011