



# CERTIFICATE OF QUALITY

## EcoSure® Type GP Cement

NZS3122:2009 (Bulk & Bag Dispatch)



Issued to: National Sales Manager

Test Report No: 24#171

info@goldenbay.co.nz

Code	Week Ending / Voyage	Specific Surface Area	Normal Consistency	Initial Set	Final Set	Soundness	Compressive Strength							Free Lime	Sodium Equivalent (NaEq)	Sulphur Trioxide (SO <sub>3</sub> )
							ISOCEN			Concrete						
							3 days	7 days	28 days	Slump	3 days	7 days	28 days			
Mean		366	29.6	169	3:58	1	34.5	46.5	64.5	94	26.0	36.0	47.2	1.4	0.55	2.31
Standard Deviation		6	0.3	8	0:09	0.4	1.0	1.4	0.8	7	1.8	2.8	2.0	0.2	0.01	0.06
Min		350	29.1	150	3:45	0	32.6	44.3	63.1	80	23.5	32.0	44.0	1.2	0.51	2.13
Max		375	30.3	180	4:15	2	36.5	49.1	65.8	100	28.0	41.0	49.5	1.8	0.57	2.41
NZS 3122:2009 Requirements				45 min	6:00 max	5 max		35.0 min	45.0 min						0.6 max	3.5 max
Units		m <sup>2</sup> /kg	%	minutes	hrs:mins	mm	MPa	MPa	MPa	mm	MPa	MPa	MPa	%	%	%
241204-785-GP	04/12/24	365	29.1	165	4:15	1	34.0			90	29.0			1.2	0.55	2.13
241203-787-GP	03/12/24	370	29.1	165	3:45	1	34.7							1.3	0.55	2.30
241130-597-GP	30/11/24	355	29.9	180	4:15	1	33.6	46.4						1.3	0.53	2.24
241124-357-GP	24/11/24	375	30.3	165	4:00	1	35.4	44.3		100	24.0	33.5		1.3	0.51	2.24
241120-143-GP	20/11/24	375	30.0	165	4:00	0	33.7	45.5		90	27.0	35.5		1.4	0.54	2.35
241115-766-GP	15/11/24	365	29.9	165	4:00	1	32.8	44.6						1.5	0.53	2.31
241112-753-GP	12/11/24	375	29.9	180	4:00	1	33.6	45.2		100	26.5	34.5		1.8	0.57	2.35
241107-409-GP	07/11/24	360	29.8	165	3:45	1	34.6	47.2	64.1					1.5	0.56	2.35
241103-407-GP	03/11/24	360	29.9	165	3:45	2	34.7	47.9	64.6	100	23.5	34.0	44.5	1.4	0.55	2.29
241030-149-GP	30/10/24	370	29.7	150	3:45	1	35.2	47.7	64.3	100	25.0	34.0	48.0	1.6	0.56	2.34
241025-850-GP	25/10/24	370	29.6	180	4:00	1	33.3	45.8	63.6					1.5	0.56	2.34
241020-848-GP	20/10/24	365	29.6	165	4:00	1	35.4	46.6	64.3	90	28.0	38.0	48.0	1.6	0.56	2.35
241016-521-GP	16/10/24	365	29.6	165	4:15	1	33.1	47.3	64.5	80	28.0	41.0	49.5	1.3	0.55	2.34
241014-519-GP	14/10/24	370	29.6	165	3:45	1	32.6	44.8	63.8					1.6	0.57	2.33
241010-227-GP	10/10/24	365	29.5	165	4:00	0	34.1	47.1	65.6					1.4	0.55	2.30
241007-225-GP	07/10/24	365	29.4	165	4:00	1	34.5	47.5	64.7	100	25.5	37.5	49.0	1.6	0.56	2.31
241002-082-GP	02/10/24	370	29.4	180	4:00	0	34.7	45.1	63.3					1.8	0.53	2.33
240929-964-GP	29/09/24	370	29.7	165	4:00	1	34.6	45.5	63.9	90	27.5	39.0	48.5	1.6	0.56	2.38
240925-556-GP	25/09/24	370	29.5	165	4:00	0	34.9	45.6	65.4	80	26.5	39.0	48.5	1.2	0.54	2.40
240919-459-GP	19/09/24	370	29.5	180	4:00	1	34.7	47.2	65.1	100	24.0	33.5	48.5	1.5	0.56	2.27
240913-116-GP	13/09/24	365	29.6	165	3:45	0	36.5	49.1	65.8					1.8	0.55	2.27
240909-992-GP	09/09/24	365	29.5	165	4:00	1	35.8	47.4	64.7	100	24.5	33.0	44.0	1.3	0.54	2.37
240901-689-GP	01/09/24	365	29.5	180	4:00	1	36.1	48.4	65.7	90	27.5	39.5	48.0	1.2	0.55	2.41
240828-359-GP	28/08/24	360	29.5	180	4:15	2	35.4	47.9	65.0	100	23.5	32.0	44.0	1.2	0.55	2.30
240825-201-GP	25/08/24	350	29.5	165	4:00	1	33.4	44.6	63.1	100	26.0	36.5	46.0	1.3	0.54	2.24

The above samples were tested as received in accordance with the current terms of accreditation and methods stated in NZS 3122:2009 with the exception of: Chemical composition to ASTM C114-18

All concrete testing conducted in accordance with NZS 3112:1986.

Amended to comply with NZS 3112:1986.

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Vincent Lane  
Works Chemist



Portland Works, Portland, Whangarei 0178

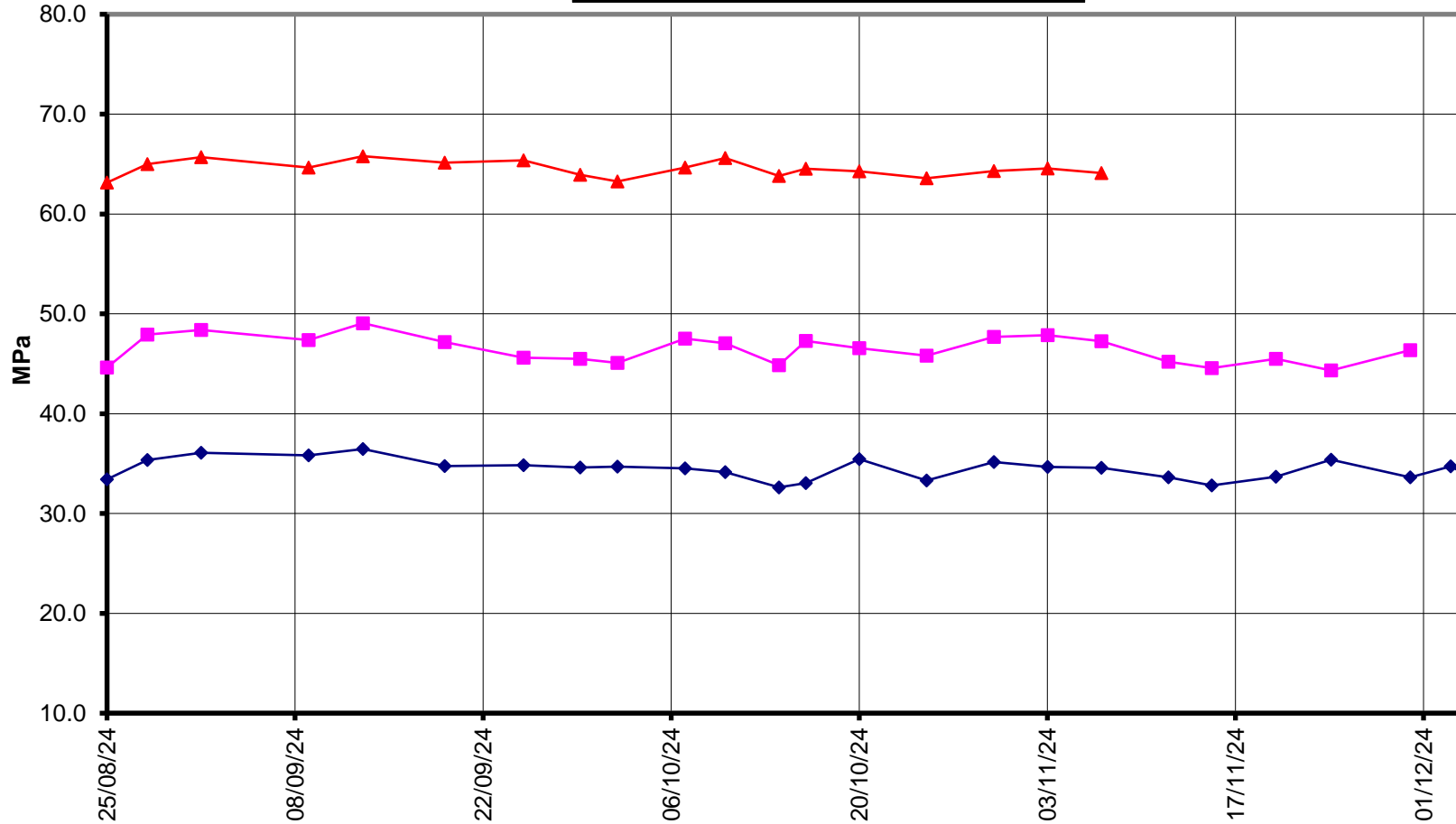
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# EcoSure® Type GP Cement

## Compressive Strength ISO-CEN Mortar (Bulk Dispatch)





# EcoSure® Type GP Cement

## Compressive Strength Concrete (Bulk Dispatch)



—x— 28 Days    —■— 7 Days    —◆— 3 Days    —x— Slump

