



# CERTIFICATE OF QUALITY

## EcoSure® Type GP Cement

NZS3122:2009 (Bulk & Bag Dispatch)



Issued to: National Sales Manager

Test Report No: 24#142

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		363	29.5	168	4:01	1	34.0	46.3	64.9	94	26.0	36.2	46.7	1.5	0.54	2.32
Standard Deviation		7	0.1	8	0:08	0.4	1.4	1.6	1.5	7	1.3	2.1	1.5	0.2	0.01	0.06
Min		350	28.9	150	3:45	0	30.3	42.8	63.1	80	23.5	32.0	44.0	1.2	0.51	2.15
Max		370	29.7	180	4:15	2	36.5	49.1	70.0	100	28.5	39.5	48.5	2.0	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	%	%	%
241016-521-GP	16/10/24	365	29.6	165	4:15	1	33.1			80				1.3	0.55	2.34
241014-519-GP	14/10/24	370	29.6	165	3:45	1	32.6							1.6	0.57	2.33
241010-227-GP	10/10/24	365	29.5	165	4:00	0	34.1	47.1						1.4	0.55	2.30
241007-225-GP	07/10/24	365	29.4	165	4:00	1	34.5	47.5		100	25.5	37.5		1.6	0.56	2.31
241002-082-GP	02/10/24	370	29.4	180	4:00	0	34.7	45.1						1.8	0.53	2.33
240929-964-GP	29/09/24	370	29.7	165	4:00	1	34.6	45.5		90	27.5	39.0		1.6	0.56	2.38
240925-556-GP	25/09/24	370	29.5	165	4:00	0	34.9	45.6		80	26.5	39.0		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
240814-777-GP	14/08/24	350	29.5	180	4:00	2	33.1	46.6	64.3	100	25.5	36.5	46.5	1.3	0.55	2.25
240806-438-GP	06/08/24	365	29.6	180	4:15	1	32.6	46.9	65.2	90	27.0	37.5	48.0	1.5	0.54	2.31
240801-139-GP	01/08/24	370	29.4	165	4:00	1	33.7	47.0	64.8					1.8	0.53	2.31
240729-137-GP	29/07/24	370	29.6	165	3:45	1	32.9	44.4	63.2	90	28.5	36.5	47.0	1.7	0.54	2.31
240724-875-GP	24/07/24	355	29.5	165	4:00	1	32.8	43.9	63.6	90	26.5	36.5	46.5	1.9	0.54	2.27
240718-573-GP	18/07/24	350	29.5	165	4:15	1	32.7	45.1	64.6					1.5	0.53	2.35
240716-571-GP	16/07/24	355	29.5	165	4:15	1	33.5	46.3	64.5	90	26.5	36.5	46.5	1.6	0.53	2.39
240712-250-GP	12/07/24	360	29.6	165	4:00	2	35.2	47.1	66.1	100	26.0	35.0	46.0	1.3	0.54	2.37
240708-248-GP	08/07/24	365	28.9	165	4:00	1	34.1	46.4	64.9					1.6	0.52	2.37
240703-939-GP	03/07/24	360	29.6	165	4:00	1	35.2	48.9	70.0					1.5	0.51	2.32
240630-937-GP	30/06/24	365	29.5	165	4:00	1	33.9	44.8	64.7	100	26.5	35.5	48.5	1.4	0.52	2.28
240626-520-GP	26/06/24	365	29.5	150	4:00	2	30.3	42.8	63.9	100	25.0	35.5	47.0	2.0	0.52	2.15

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.

This Report must not be reproduced except in full

Vincent Lane  
Works Chemist



Portland Works, Portland, Whangarei 0178

Date issued: 24/10/2024

Page 1 of 3

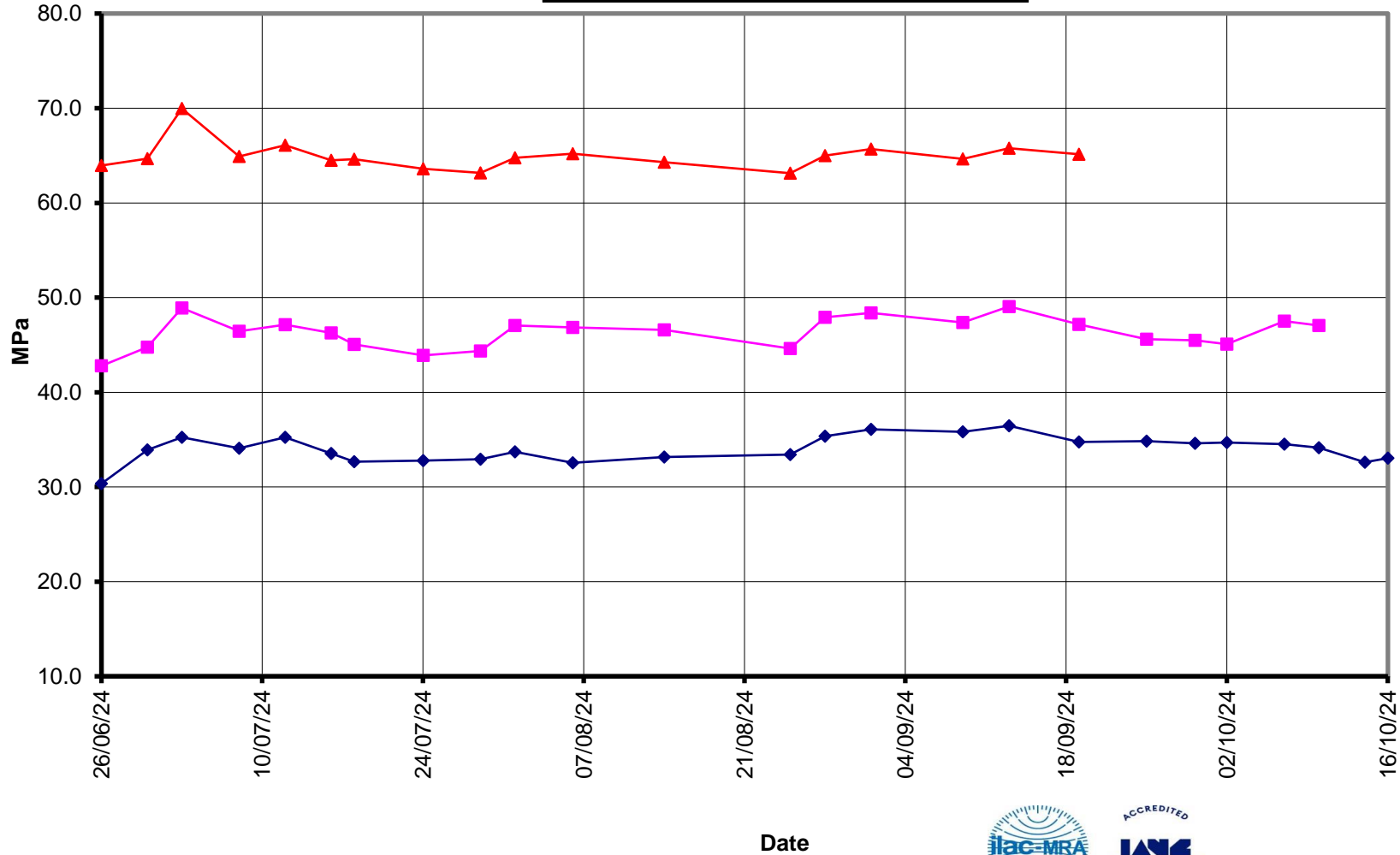


# EcoSure® Type GP Cement

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



28 Days 7 Days 3 Days





# EcoSure® Type GP Cement

## Compressive Strength Concrete (Bulk Dispatch)



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

