



# CERTIFICATE OF QUALITY

## EcoSure® Type GP Cement

NZS3122:2009 (Bulk & Bag Dispatch)



Issued to: National Sales Manager

Test Report No: 24#39

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 (SO3)
							ISOCEN			Concrete						
							3 days	7 days	28 days	Slump	3 days	7 days	28 days			
Mean		358	29.1	152	3:51	1	34.6	47.3	64.6	93	26.4	37.0	48.2	1.4	0.54	2.33
Standard Deviation		8	0.2	7	0:09	0.3	1.1	1.4	0.9	8	1.7	1.9	3.1	0.2	0.01	0.05
Min		345	28.3	135	3:30	0	31.8	45.0	63.2	80	23.5	33.5	45.0	1.1	0.51	2.22
Max		370	29.6	165	4:00	2	36.5	49.8	65.9	100	28.5	40.0	53.0	1.7	0.56	2.40
NZS 3122:2009 Requirements				45 min	6:00 max	5 max		35.0 min	45.0 min						0.6 max	3.5 max
Units		m2/kg	%	minutes	hrs:mins	mm	MPa	MPa	MPa	mm	MPa	MPa	MPa	%	%	%
240405-108-GP	05/04/24	355	29.2	150	4:00	1	35.4			100	26.5			1.3	0.56	2.37
240402-120-GP	02/04/24	360	29.4	150	4:00	1	35.8							1.3	0.56	2.33
240329-972-GP	29/03/24	360	29.5	150	4:00	1	33.4	45.5		90	27.5	37.0		1.4	0.55	2.35
240325-711-GP	25/03/24	360	29.4	150	4:00	1	34.7	47.2						1.4	0.54	2.33
240321-419-GP	21/03/24	345	29.6	150	3:45	1	34.0	46.5						1.3	0.55	2.37
240318-415-GP	18/03/24	350	29.4	150	3:45	1	33.1	46.8		80	29.5	40.0		1.3	0.55	2.38
240313-053-GP	13/03/24	355	29.4	150	4:00	1	35.1	46.4						1.4	0.52	2.40
240310-051-GP	10/03/24	350	29.3	150	3:45	1	35.9	49.6		100	26.0	35.0		1.3	0.55	2.28
240308-720-GP	08/03/24	365	29.1	150	3:45	1	35.6	48.7	65.5					1.2	0.53	2.26
240305-717-GP	05/03/24	365	29.1	165	4:00	1	35.6	48.2	64.6	90	25.5	38.0	53.0	1.3	0.54	2.22
240301-385-GP	01/03/24	350	28.9	150	3:45	1	33.8	46.8	64.3	100	25.5	39.5	48.0	1.2	0.56	2.26
240228-383-GP	28/02/24	360	29.0	150	3:30	1	33.8	46.9	63.9					1.5	0.56	2.34
240222-049-GP	22/02/24	370	29.1	150	3:45	1	34.2	47.4	65.4					1.2	0.56	2.34
240217-047-GP	17/02/24	370	29.0	165	3:45	1	36.4	49.3	65.2	100	25.0	36.5	46.5	1.1	0.56	2.29
240214-662-GP	14/02/24	350	29.1	165	4:00	1	34.9	48.8	65.1	100	27.5	38.0	45.0	1.1	0.53	2.22
240212-660-GP	12/02/24	350	29.0	150	3:45	1	36.5	49.8	64.9					1.3	0.55	2.31
240208-341-GP	08/02/24	370	29.1	150	4:00	2	35.0	47.8	63.5					1.5	0.53	2.37
240205-339-GP	05/02/24	360	28.9	150	4:00	1	35.2	47.9	64.6	90	28.5	39.0	52.5	1.5	0.53	2.35
240131-047-GP	31/01/24	360	29.1	150	4:00	1	34.1	45.6	65.3	90	26.0	36.0	48.0	1.2	0.54	2.35
240123-989-GP	23/01/24	345	29.1	150	4:00	1	34.6	47.2	65.9	80	27.0	35.5	52.5	1.5	0.54	2.35
240114-705-GP	14/01/24	350	28.3	165	4:00	1	35.0	47.5	64.1	80	26.5	37.0	47.0	1.3	0.54	2.31
240111-476-GP	11/01/24	365	29.1	150	3:45	1	33.6	45.4	63.6	90	28.5	38.0	48.0	1.5	0.52	2.34
240106-162-GP	06/01/24	360	29.1	150	4:00	0	34.4	45.2	63.2					1.5	0.53	2.31
240102-160-GP	02/01/24	360	29.1	145	3:45	1	33.8	45.0	63.3	100	23.5	35.0	45.0	1.6	0.51	2.35
231225-830-GP	25/12/23	360	29.1	135	3:30	2	31.8	47.5	65.6	100	23.5	33.5	45.0	1.7	0.53	2.39

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.

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Vincent Lane  
Works Chemist



Portland Works, Portland, Whangarei 0178

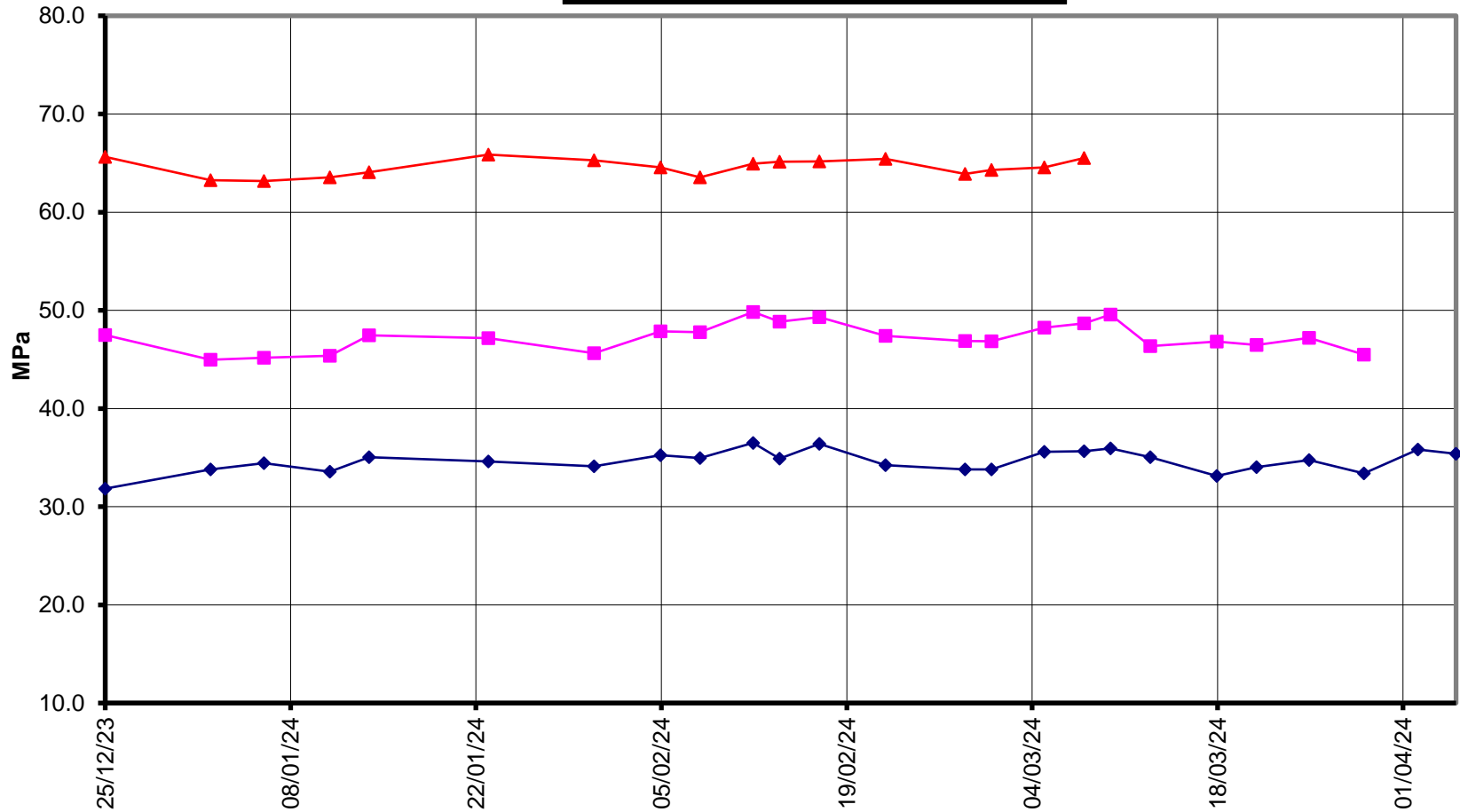
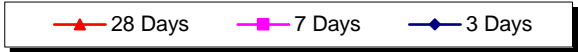
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# EcoSure® Type GP Cement

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



Date





# EcoSure® Type GP Cement

## Compressive Strength Concrete (Bulk Dispatch)



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

