



CERTIFICATE OF QUALITY

EcoSure® Type GP Cement

NZS3122:2009 (Bulk & Bag Dispatch)



Issued to: National Sales Manager

Test Report No:

24#73

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)
							ISO-CEN			Concrete						
							3 days	7 days	28 days	Slump	3 days	7 days	28 days			
Mean		361	29.4	153	3:51	1	34.3	46.9	64.6	94	27.1	38.4	51.0	1.4	0.54	2.34
Standard Deviation		7	0.2	6	0:11	0.3	1.0	1.3	1.0	7	2.6	2.2	3.1	0.2	0.01	0.05
Min		345	28.9	150	3:30	1	32.7	44.4	63.7	80	22.5	34.5	46.0	1.2	0.52	2.22
Max		370	29.6	165	4:15	2	35.9	49.6	67.7	105	30.5	42.5	56.5	1.8	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	%	%	%
240605-537-GP	05/06/24	370	29.6	150	3:45	1	34.9			105	22.5			1.6	0.54	2.33
240531-218-GP	31/05/24	370	29.6	165	4:00	1	33.8	45.7		100	23.5	34.5		1.8	0.52	2.34
240523-036-GP	23/05/24	370	29.6	150	4:15	1	32.7	47.7		90	28.0	37.0		1.5	0.53	2.33
240514-875-GP	14/05/24	370	29.5	150	4:15	1	34.7	48.8						1.7	0.54	2.39
240512-873-GP	12/05/24	365	29.6	165	4:00	2	34.0	47.0		90	31.5	40.0		1.8	0.54	2.37
240506-706-GP	06/05/24	370	29.6	150	3:45	1	35.0	47.3	63.7	90	30.5	42.5	53.0	1.6	0.55	2.36
240502-364-GP	02/05/24	360	29.5	165	4:00	2	32.9	44.4	64.4					1.6	0.53	2.38
240429-360-GP	29/04/24	360	29.5	165	3:45	2	33.6	46.1	64.4	100	26.0	38.0	46.0	1.4	0.53	2.39
240425-988-GP	25/04/24	365	29.5	150	3:45	1	35.1	45.6	65.2					1.7	0.55	2.35
240421-984-GP	21/04/24	360	29.6	150	3:30	2	33.7	46.0	64.3	100	26.5	38.5	52.5	1.6	0.54	2.33
240414-690-GP	14/04/24	365	29.5	150	3:45	1	32.9	44.5	63.8	90	30.5	41.0	56.5	1.3	0.54	2.33
240409-385-GP	09/04/24	360	29.5	150	3:45	1	33.3	46.7	63.9	90	27.0	40.0	52.5	1.4	0.54	2.40
240405-108-GP	05/04/24	355	29.2	150	4:00	1	35.4	46.5	63.9	100	26.5	37.0	51.0	1.3	0.56	2.37
240402-120-GP	02/04/24	360	29.4	150	4:00	1	35.8	48.2	66.4					1.3	0.56	2.33
240329-972-GP	29/03/24	360	29.5	150	4:00	1	33.4	45.5	63.8	90	27.5	37.0	49.5	1.4	0.55	2.35
240325-711-GP	25/03/24	360	29.4	150	4:00	1	34.7	47.2	64.0					1.4	0.54	2.33
240321-419-GP	21/03/24	345	29.6	150	3:45	1	34.0	46.5	64.8					1.3	0.55	2.37
240318-415-GP	18/03/24	350	29.4	150	3:45	1	33.1	46.8	63.8	80	29.5	40.0	52.0	1.3	0.55	2.38
240313-053-GP	13/03/24	355	29.4	150	4:00	1	35.1	46.4	64.5					1.4	0.52	2.40
240310-051-GP	10/03/24	350	29.3	150	3:45	1	35.9	49.6	67.7	100	26.0	35.0	47.0	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

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

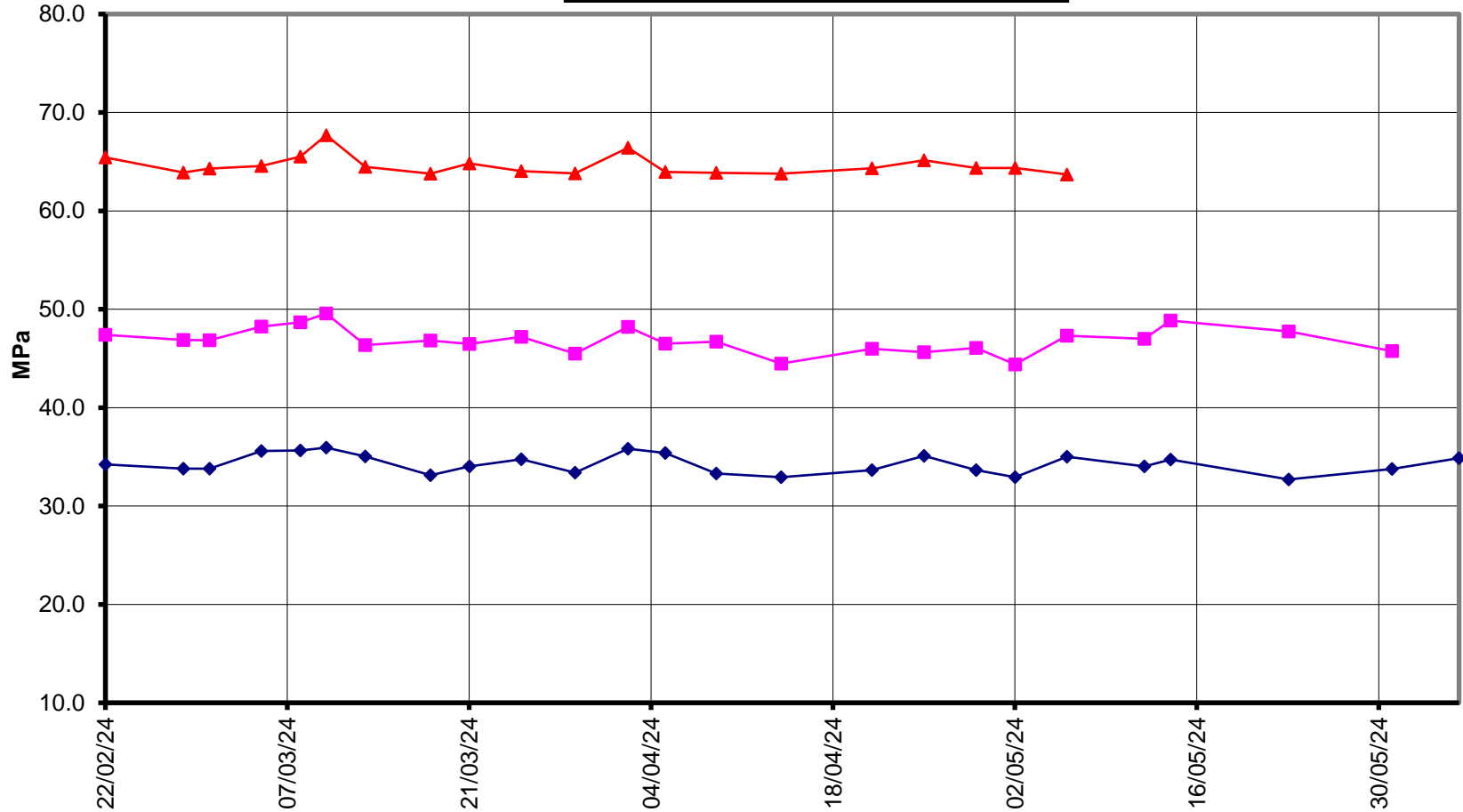
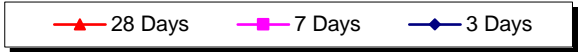
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EcoSure® Type GP Cement

Compressive Strength ISO-CEN Mortar (Bulk Dispatch)





EcoSure® Type GP Cement

Compressive Strength Concrete (Bulk Dispatch)



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

