



CERTIFICATE OF QUALITY

EcoSure® Type GP Cement

NZS3122:2009 (Bulk & Bag Dispatch)



Issued to: National Sales Manager

Test Report No: 24#101

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 ₃)
							ISOCEN			Concrete						
							3 days	7 days	28 days	Slump	3 days	7 days	28 days			
Mean		363	29.5	160	3:57	1	33.8	46.0	64.5	95	27.2	37.5	49.6	1.6	0.53	2.33
Standard Deviation		6	0.1	7	0:12	0.4	1.1	1.5	1.5	6	2.4	2.6	3.8	0.2	0.01	0.05
Min		350	28.9	150	3:30	0	30.3	42.8	63.0	90	22.5	33.0	44.0	1.1	0.51	2.15
Max		370	29.6	165	4:15	2	35.2	48.9	70.0	105	31.5	42.5	56.5	2.0	0.55	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		m ² /kg	%	minutes	hrs:mins	mm	MPa	MPa	MPa	mm	MPa	MPa	MPa	%	%	%
240801-139-GP	01/08/24	370	29.4	165	4:00	1	33.7							1.8	0.53	2.31
240729-137-GP	29/07/24	370	29.6	165	3:45	1	32.9			90	28.5			1.7	0.54	2.31
240724-875-GP	24/07/24	355	29.5	165	4:00	1	32.8	43.9		90	26.5	36.5		1.9	0.54	2.27
240718-573-GP	18/07/24	350	29.5	165	4:15	1	32.7	45.1						1.5	0.53	2.35
240716-571-GP	16/07/24	355	29.5	165	4:15	1	33.5	46.3		90	26.5	36.5		1.6	0.53	2.39
240712-250-GP	12/07/24	360	29.6	165	4:00	2	35.2	47.1		105	26.0	35.0		1.3	0.54	2.37
240708-248-GP	08/07/24	365	28.9	165	4:00	1	34.1	46.4						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
240621-275-GP	21/06/24	355	29.5	165	3:45	2	34.4	45.4	63.3	100	29.0	39.5	52.5	1.1	0.51	2.36
240613-081-GP	13/06/24	360	29.5	165	4:15	2	35.0	46.8	64.6					1.6	0.51	2.31
240610-799-GP	10/06/24	365	29.6	165	4:15	0	33.4	45.8	63.0	90	28.5	37.5	48.5	1.5	0.53	2.28
240605-537-GP	05/06/24	370	29.6	150	3:45	1	34.9	45.2	63.7	105	22.5	33.0	44.0	1.6	0.54	2.33
240531-218-GP	31/05/24	370	29.6	165	4:00	1	33.8	45.7	63.5	100	23.5	34.5	44.0	1.8	0.52	2.34
240523-036-GP	23/05/24	370	29.6	150	4:15	1	32.7	47.7	63.7	90	28.0	37.0	48.5	1.5	0.53	2.33
240514-875-GP	14/05/24	370	29.5	150	4:15	1	34.7	48.8	65.5					1.7	0.54	2.39
240512-873-GP	12/05/24	365	29.6	165	4:00	2	34.0	47.0	65.0	90	31.5	40.0	51.0	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

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

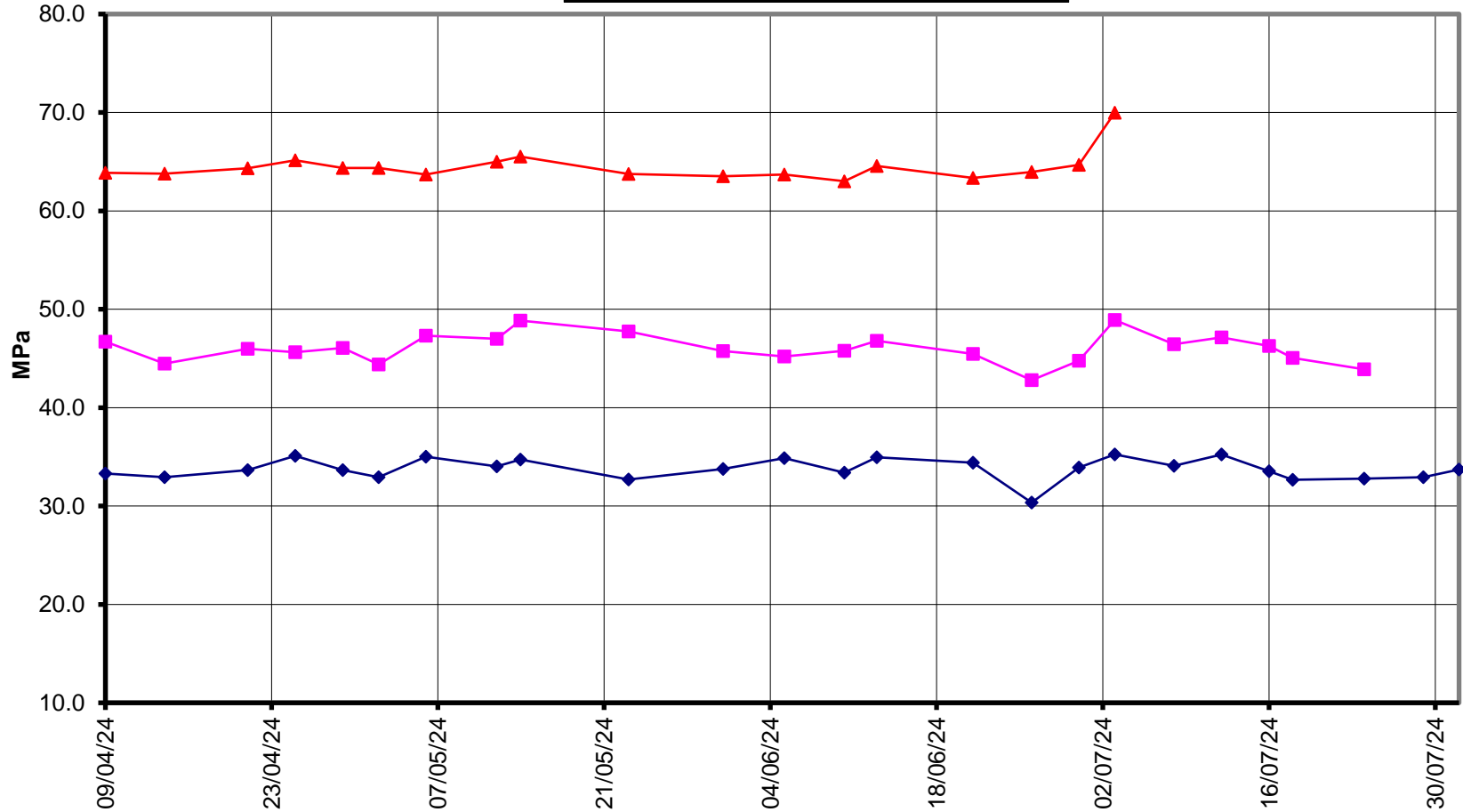
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Page 1 of 3



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

