



CERTIFICATE OF QUALITY

EcoSure® Type GP Cement

NZS3122:2009 (Bulk Despatch)



Issued to: National Sales Manager

Test Report No: 23#18

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)	
							ISOCCN			Concrete						
							3 days	7 days	28 days	Slump	3 days	7 days				28 days
Mean		345	29.1	137	3:46	1	31.2	44.5	64.8	96	23.3	33.0	49.0	1.9	0.54	2.2
Standard Deviation		14	0.2	9	0:13	0	1.0	1.8	1.4	9	1.7	1.7	2.4	0.3	0.01	0.05
Min		320	28.7	120	3:30	1	28.9	40.0	62.1	80	21.3	30.4	45.4	1.4	0.52	2.1
Max		375	29.5	150	4:15	2	33.6	48.8	67.6	110	25.0	36.0	52.6	2.4	0.57	2.3
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	%	%	%
230201-210-GP	01/02/23	345	28.7	135	4:00	1	31.8	46.1		100	26.9	32.1		1.6	0.55	2.1
230124-814-GP	24/01/23	345	29.2	120	3:45	1	32.6	46.0		90	25.8	30.4		1.4	0.55	2.1
230121-657-GP	21/01/23	325	28.8	120	4:00	1	30.3	45.8						2.3	0.53	2.1
230119-477-GP	19/01/23	325	29.3	135	4:15	1	30.1	44.6		90	22.7	32.4		1.8	0.53	2.1
230113-325-GP	13/01/23	345	29.1	150	3:45	1	31.6	46.6	65.1					1.9	0.55	2.2
230107-315-GP	07/01/23	345	29.1	150	3:45	2	30.8	42.7	65.5	110	21.7	32.0	52.4	1.8	0.53	2.2
221231-208-GP	31/12/22	335	29.3	135	4:00	1	30.3	43.2	62.4	90	22.3	32.1	48.9	1.7	0.52	2.2
221223-021-GP	23/12/22	335	29.4	150	3:45	1	30.3	42.6	66.0	100	21.3	33.3	50.7	2.0	0.53	2.2
221220-706-GP	20/12/22	320	29.5	135	4:00	1	30.9	44.4	67.6					1.8	0.52	2.2
221217-703-GP	17/12/22	325	29.5	135	4:00	1	32.9	44.6	65.1	90	23.4	32.1		1.8	0.54	2.2
221214-374-GP	14/12/22	340	28.9	135	3:45	1	29.6	43.9	66.4					1.9	0.54	2.1
221212-372-GP	12/12/22	335	28.8	120	3:30	1	31.1	43.2	65.2					2.2	0.56	2.1
221207-951-GP	07/12/22	340	29.0	135	4:00	1	32.2	44.9	65.0					2.1	0.57	2.1
221205-949-GP	05/12/22	340	29.2	135	3:45	1	32.3	44.5	65.3	100	22.5	30.5	45.4	2.2	0.57	2.1
221130-529-GP	30/11/22	360	29.2	135	3:45	1	31.3	43.9	65.4	90	25.0	35.7	48.7	2.2	0.55	2.2
221128-527-GP	28/11/22	355	29.1	135	4:00	2	31.5	44.1	64.6					2.3	0.55	2.2
221126-234-GP	26/11/22	375	29.0	135	3:30	1	30.5	44.3	62.9	100	22.7	34.6	48.5	2.4	0.57	2.2
221124-236-GP	24/11/22	355	29.1	135	3:30	1	31.1	43.3	62.1					2.4	0.55	2.1
221118-977-GP	18/11/22	355	29.0	150	4:00	1	31.6	45.6	64.1					1.9	0.53	2.1
221113-975-GP	13/11/22	350	28.9	150	3:45	1	33.6	48.8	65.7	90	24.4	34.2	52.6	1.4	0.54	2.2
221109-470-GP	09/11/22	355	29.0	150	3:30	1	31.4	46.4	66.4	110	21.8	33.4	47.1	1.5	0.54	2.1
221107-504-GP	07/11/22	370	29.0	150	3:45	1	31.2	46.7	64.8					2.0	0.53	2.2
221102-131-GP	02/11/22	340	29.1	135	3:30	1	30.6	43.7	63.8					1.6	0.57	2.2
221031-129-GP	31/10/22	350	29.1	135	3:30	1	31.3	42.8	65.3	100	22.5	33.3	46.3	2.0	0.53	2.3
221027-728-GP	27/10/22	350	28.7	135	3:30	1	28.9	40.0	62.9	80	23.6	36.0	49.7	2.3	0.53	2.2

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

- Concrete Compressive Strength test results outside the scope of accreditation

Sample Retested

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Raki Harding
Quality Manager



Portland Works, Portland, Whangarei 0178

Date issued: 16/02/2023

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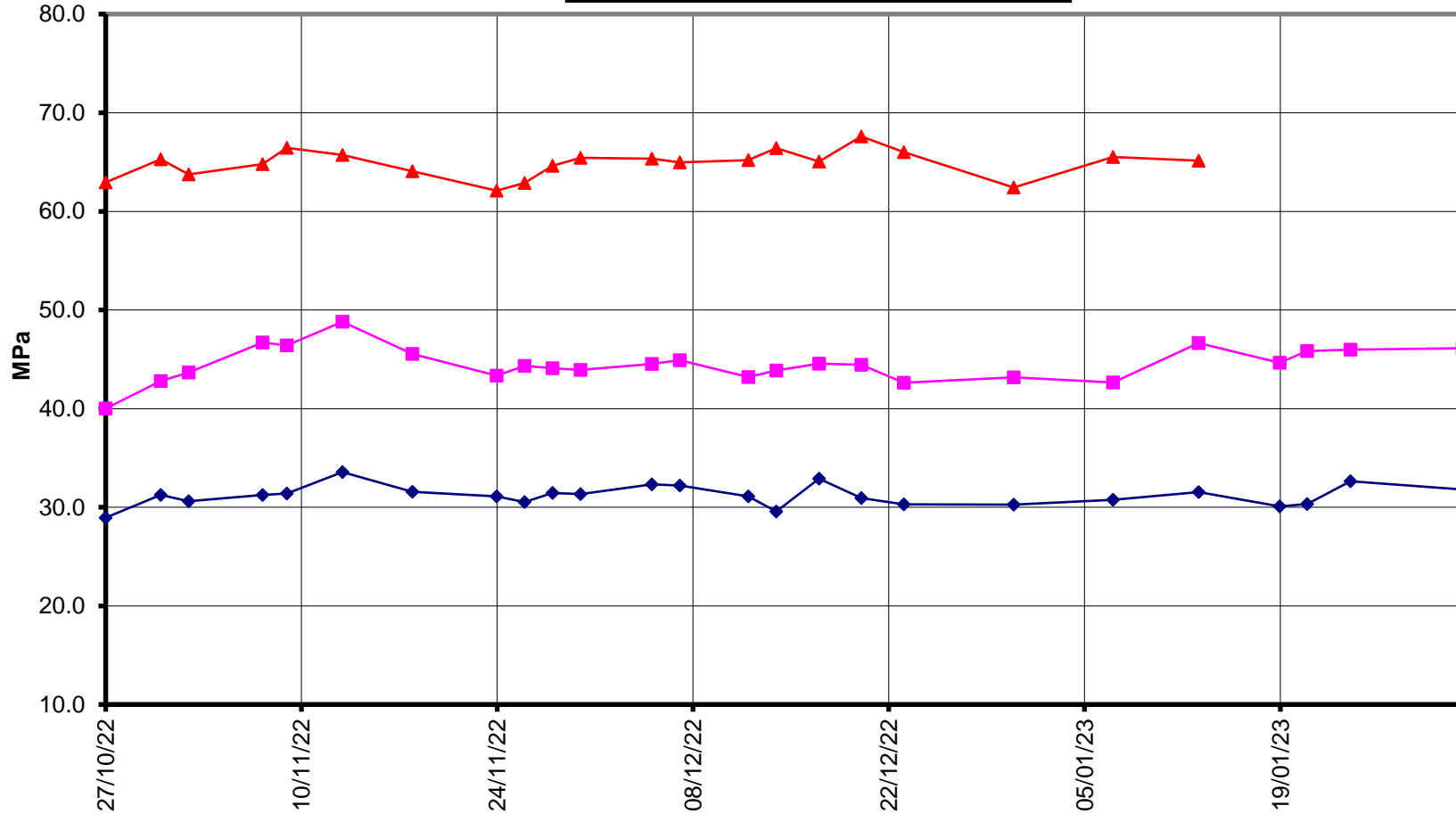


EcoSure® Type GP Cement

Compressive Strength ISO-CEN Mortar (Bulk Dispatch)



28 Days 7 Days 3 Days



Date





EcoSure® Type GP Cement

Compressive Strength Concrete (Bulk Dispatch)



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

