



CERTIFICATE OF QUALITY

EcoSure® Type GP Cement

NZS3122:2009 (Bulk Despatch)



Issued to: National Sales Manager

Test Report No: 22#117

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)	
							ISOECN			Slump	Concrete					
							3 days	7 days	28 days		3 days	7 days				28 days
Mean		349	29.0	140	3:37	1	30.1	42.4	64.7	92	23.1	33.9	48.6	2.0	0.55	2.2
Standard Deviation		11	0.3	8	0:13	0	1.3	2.7	1.4	10	1.6	1.8	2.1	0.3	0.02	0.05
Min		330	28.5	120	3:15	0	28.1	37.8	62.9	80	20.2	30.7	46.0	1.4	0.52	2.1
Max		375	29.5	150	4:00	2	33.6	48.8	68.5	110	25.8	36.7	52.5	2.4	0.58	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	%	%	%
221130-529-GP	30/11/22	360	29.2	135	3:45	1	31.3	43.9		90	25.0			2.2	0.55	2.2
221128-527-GP	28/11/22	355	29.1	135	4:00	2	31.5	44.1						2.3	0.55	2.2
221126-234-GP	26/11/22	375	29.0	135	3:30	1	30.5	44.3		100	22.7	34.6		2.4	0.57	2.2
221124-236-GP	24/11/22	355	29.1	135	3:30	1	31.1	43.3						2.4	0.55	2.1
221118-977-GP	18/11/22	355	29.0	150	4:00	1	31.6	45.6						1.9	0.53	2.1
221113-975-GP	13/11/22	350	28.9	150	3:45	1	33.6	48.8		90	24.4	34.2		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		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
221025-726-GP	25/10/22	335	28.8	135	3:15	1	29.6	43.5	65.6					2.1	0.55	2.2
221022-416-GP	22/10/22	330	28.5	150	3:15	1	28.6	39.4	65.2	80	22.0	33.8	52.5	2.3	0.54	2.2
221016-418-GP	16/10/22	335	28.5	135	3:15	1	29.2	41.6	68.5					2.2	0.53	2.2
221013-143-GP	13/10/22	335	28.5	150	3:45	1	28.7	40.6	66.9					2.0	0.54	2.2
221008-141-GP	08/10/22	335	28.5	135	3:45	2	28.9	37.8	65.3	100	20.2	31.7	47.6	1.9	0.55	2.2
221006-731-GP	06/10/22	340	28.7	120	3:45	1	28.1	39.9	63.5					2.0	0.52	2.2
221003-729-GP	03/10/22	350	29.2	135	3:30	2	29.9	41.0	64.2	80	24.3	34.4	48.6	2.0	0.52	2.2
221001-439-GP	01/10/22	350	29.5	150	3:45	0	30.4	41.6	64.1					2.2	0.56	2.2
220927-437-GP	27/09/22	355	29.5	150	4:00	1	29.7	40.1	64.1	90	22.5	35.4	50.6	2.1	0.58	2.2
220924-053-GP	24/09/22	350	29.4	135	3:30	1	30.5	44.1	63.5					2.0	0.56	2.2
220919-051-GP	19/09/22	355	29.2	150	3:45	1	29.9	40.6	64.1	100	21.6	30.7	47.4	2.0	0.58	2.2
220914-712-GP	14/09/22	355	29.4	135	3:30	1	28.7	40.0	64.0					2.3	0.56	2.3
220911-710-GP	11/09/22	340	29.3	135	3:45	1	28.6	39.9	63.2	90	23.8	32.1	46.0	2.2	0.56	2.3
220906-342-GP	06/09/22	345	29.4	135	3:45	1	28.8	40.7	64.7	80	25.8	36.7	48.9	1.9	0.57	2.3

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: 12/12/2022

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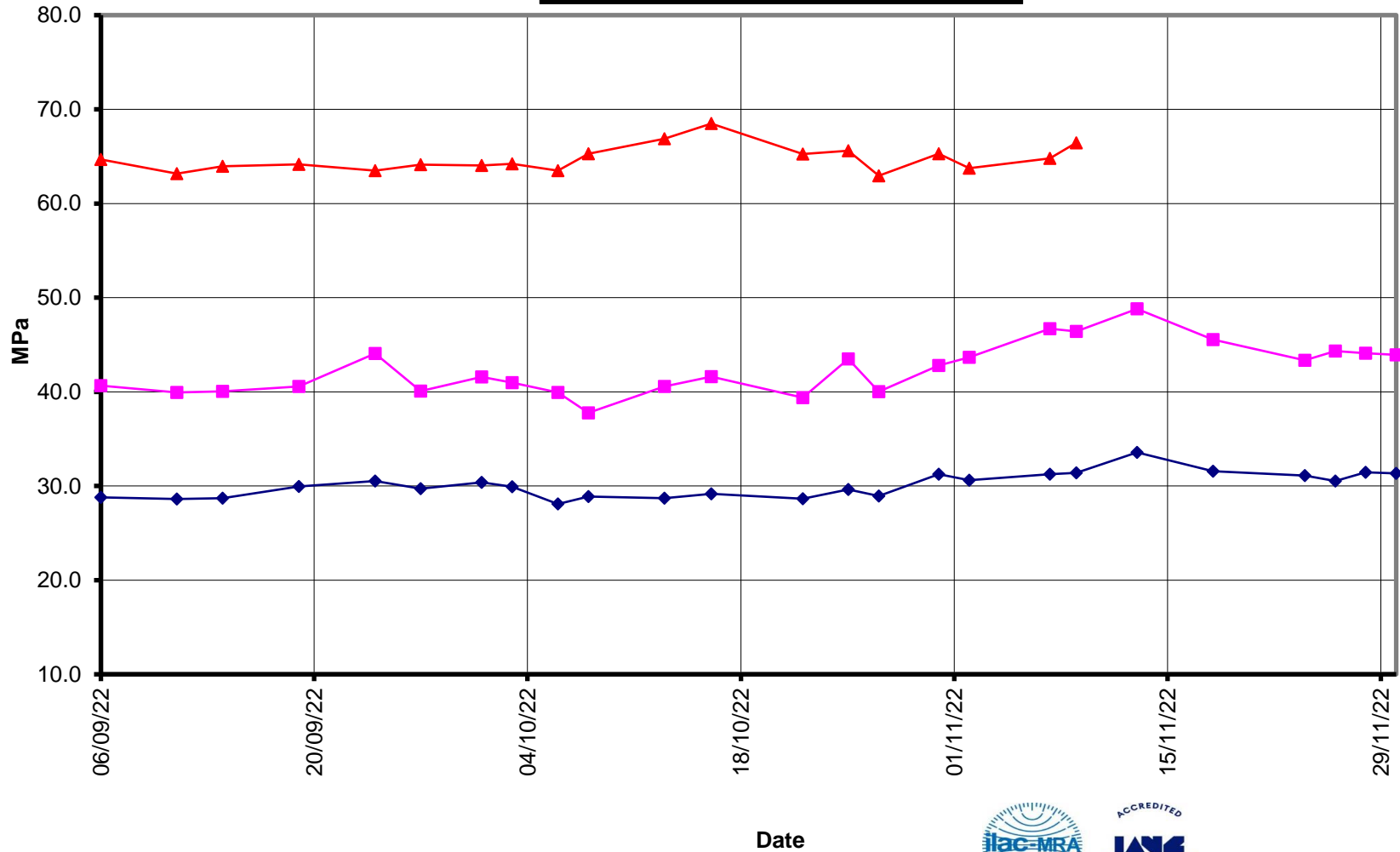


EcoSure® Type GP Cement

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

