



CERTIFICATE OF QUALITY

EcoSure® Type GP Cement

NZS3122:2009 (Bulk & Bag Despatch)



Issued to: National Sales Manager

Test Report No: 23#72

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			Concrete						
							3 days	7 days	28 days	Slump	3 days	7 days				28 days
Mean		343	29.2	148	3:54	1	32.7	46.4	66.9	95	23.0	33.2	46.3	1.5	0.55	2.22
Standard Deviation		9	0.3	12	0:17	0.4	1.2	1.6	1.8	9	2.4	2.3	2.9	0.2	0.02	0.10
Min		330	28.8	135	3:30	0	30.4	43.3	63.0	80	19.5	29.5	42.0	1.3	0.51	2.12
Max		360	29.9	180	4:30	2	34.9	49.4	69.5	110	25.0	37.0	52.5	2.0	0.59	2.41
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	%	%	%
230704-724-GP	04/07/23	350	29.5	135	3:30	1	34.5			90	21.5	33.5		1.7	0.56	2.39
230702-726-GP	02/07/23	355	29.5	150	3:45	1	34.1	47.3						1.6	0.57	2.39
230630-339-GP	30/06/23	340	29.6	150	3:45	1	32.7	46.6		80	27.0	36.5		1.4	0.54	2.38
230627-337-GP	27/06/23	330	29.4	150	3:45	2	34.4	48.2						1.4	0.55	2.41
230622-004-GP	22/06/23	340	29.2	150	3:30	1	33.0	47.1						1.5	0.54	2.35
230617-002-GP	17/06/23	340	29.2	150	3:30	1	34.9	48.9		80	27.5	36.0		2.0	0.52	2.30
230615-860-GP	15/06/23	350	29.1	135	3:45	1	34.7	49.4	69.5					1.8	0.53	2.32
230613-715-GP	13/06/23	350	29.1	150	3:45	1	32.7	47.4	68.5	100	21.5	31.5	44.0	1.8	0.51	2.31
230610-401-GP	10/06/23	345	28.9	135	4:15	1	32.4	47.5	68.6					1.7	0.55	2.23
230608-399-GP	08/06/23	340	28.8	135	3:30	1	33.8	48.0	65.6	110	21.5	33.5	42.0	1.4	0.53	2.25
230601-254-GP	01/06/23	330	29.3	150	4:15	1	33.1	47.8	69.4					1.3	0.56	2.15
230531-062-GP	31/05/23	345	28.8	135	4:15	1	31.6	44.6	68.0	90	25.0	34.0	52.5	1.4	0.54	2.14
230524-867-GP	24/05/23	360	28.9	165	4:15	1	31.6	45.6	68.6	100	23.0	32.5	46.5	1.5	0.55	2.16
230522-832-GP	22/05/23	350	29.0	180	4:30	1	31.2	44.9	68.1					1.5	0.55	2.16
230519-741-GP	19/05/23	340	29.0	165	4:15	1	31.4	45.5	68.3	100	21.0	30.0	46.0	1.6	0.56	2.15
230512-679-GP	12/05/23	350	29.9	165	4:00	1	32.3	45.7	67.4					1.7	0.55	2.16
230510-509-GP	10/05/23	330	29.6	150	4:15	2	30.4	43.3	64.3	100	19.5	29.5	44.5	1.5	0.54	2.13
230506-507-GP	06/05/23	335	29.3	150	4:00	1	32.3	45.8	66.0					1.4	0.55	2.14
230502-178-GP	02/05/23	330	29.2	135	4:00	0	32.4	47.7	66.0	100	20.5	32.5	46.0	1.4	0.55	2.13
230427-851-GP	27/04/23	350	28.8	135	3:45	1	32.4	47.2	66.8	100	22.5	33.0	46.0	1.4	0.57	2.15
230425-853-GP	25/04/23	350	29.2	135	3:45	1	32.6	46.3	65.6					1.5	0.55	2.14
230421-495-GP	21/04/23	345	28.9	135	3:45	0	32.1	45.4	65.2	100	24.0	37.0	49.0	1.5	0.59	2.12
230420-497-GP	20/04/23	345	29.0	150	4:00	1	31.4	43.4	63.0					1.4	0.56	2.12
230414-218-GP	14/04/23	350	29.2	150	3:45	1	32.4	44.2	65.1					1.5	0.57	2.15
230410-216-GP	10/04/23	330	29.1	150	3:45	1	33.1	46.1	66.9	90	24.0	31.5	46.0	1.6	0.57	2.17

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

Data reported as per requirements of NZS 3112:1986 & ASTM C114-18

Sample retested

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Vincent Lane
Works Chemist



Portland Works, Portland, Whangarei 0178

Date issued: 17/07/2023

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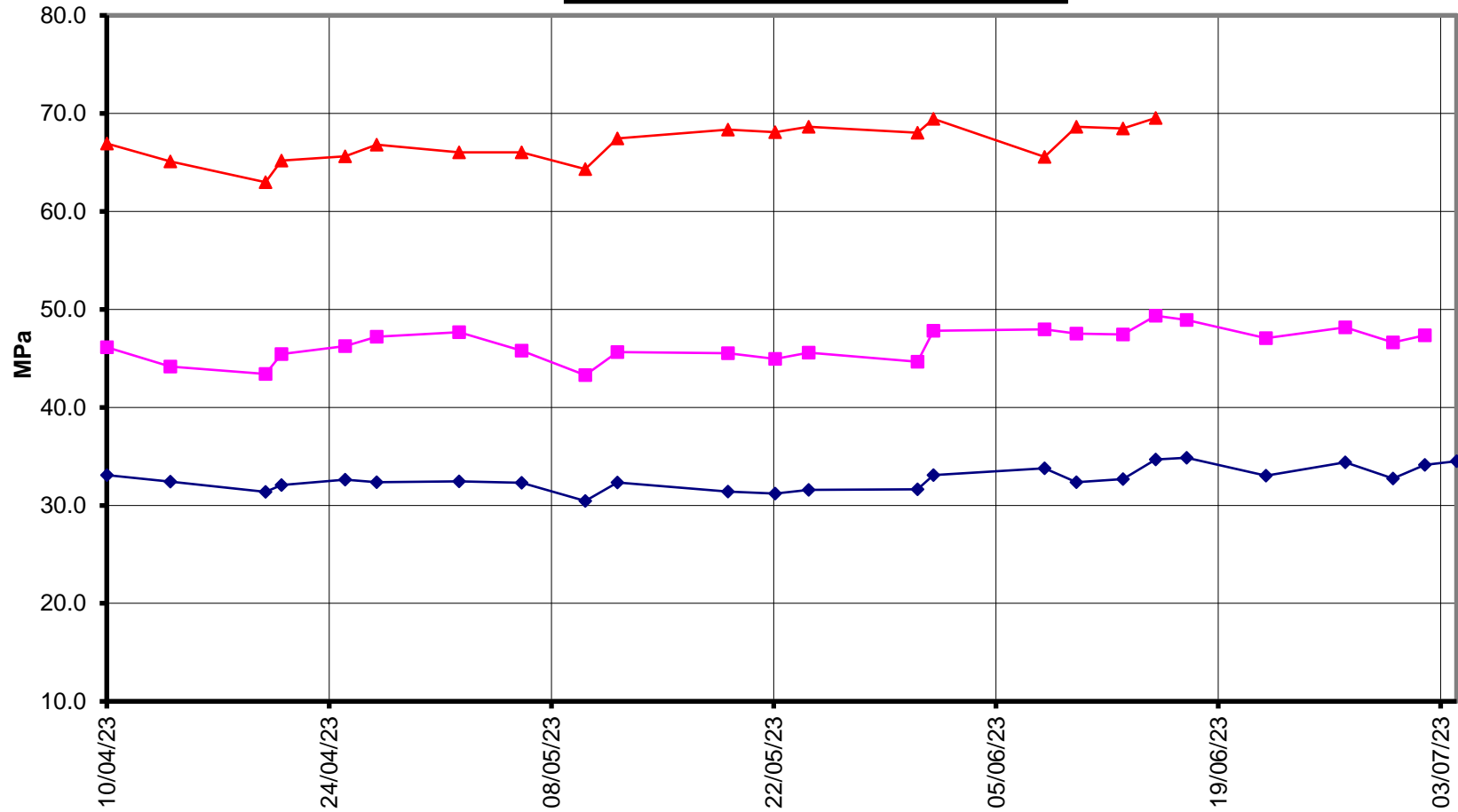


EcoSure® Type GP Cement

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

