

CERTIFICATE OF QUALITY

EcoFast® Type HE Cement

NZS 3122:2009



Issued to: **National Sales Manager**

Test Report No: **24#18**

info@goldenbay.co.nz

Code	Week Ending	Specific Surface Area	Normal Consistency	Initial Set	Final Set	Sound-ness	Compressive Strength										Free Lime	Sodium Equivalent (NaEq)	Sulphur Trioxide (SO3)
							ISO-CEN				Slump	Concrete							
							1 day	3 days	7 days	28 days		1 day	3 days	7 days	28 days				
Mean		517	33.5	116	2:59	1	23.8	41.8	52.4	67.6	83.6	14.6	36.1	44.2	54.8	1.5	0.57	2.37	
Standard Deviation		14	0.5	12	0:17	0.4	1.6	2.0	2.1	1.7	11.1	1.9	3.4	3.1	3.3	0.3	0.02	0.05	
Min		500	31.9	90	2:30	0	21.2	38.5	48.7	65.0	70.0	11.5	30.0	39.5	50.0	1.0	0.52	2.28	
Max		565	34.2	135	3:30	2	27.4	45.3	56.3	71.2	110.0	18.5	45.0	51.0	60.5	1.9	0.60	2.49	
NZS 3122:2009 Requirements				45 min	6:00 max	5 max		25.0 min	40.0 min								0.6 max	3.5 max	
Units		m2/kg	%	minutes	hrs:mins	mm	Mpa	MPa	MPa	MPa	mm	Mpa	MPa	MPa	MPa	%	%	%	
240214-666-HE	14/02/24	515	32.9	120	3:00	2	23.5	42.3			70	16.0	37.0			1.3	0.57	2.38	
240131-050-HE	31/01/24	565	33.0	120	3:15	1	23.2	44.3	50.6		90	15.0	36.5	43.5		1.7	0.56	2.40	
240105-173-HE	05/01/24	510	33.1	120	2:45	1	24.9	40.0	51.9	65.6	70	15.0	38.0	44.0	50.0	1.8	0.56	2.38	
231221-463-HE	21/12/23	530	33.0	135	3:15	1	27.4	41.4	56.3	67.9	80	15.0	35.5	44.0	51.0	1.1	0.56	2.33	
231202-748-HE	02/12/23	520	31.9	105	3:00	1	24.3	42.9	53.1	65.0	80	14.0	31.5	40.0	52.0	1.9	0.60	2.32	
231123-052-HE	23/11/23	525	32.5	135	3:15	0	24.0	38.6	53.3	68.4	90	15.0	36.5	42.5	54.5	1.8	0.58	2.31	
231109-562-HE	09/11/23	505	33.3	120	3:00	1	23.8	42.7	55.7	66.8	80	15.5	36.5	46.0	56.5	1.3	0.58	2.34	
231024-980-HE	24/10/23	525	33.6	105	2:30	1	25.6	41.8	51.8	67.0	100	14.5	35.5	42.0	50.5	1.7	0.54	2.43	
231011-416-HE	11/10/23	515	33.6	120	2:45	1	25.0	43.8	53.5	71.2	90	12.0	34.0	41.0	52.5	1.7	0.52	2.44	
230928-726-HE	28/09/23	520	33.7	120	3:00	0	24.9	43.8	53.8	68.2	80	13.0	32.5	42.0	50.5	1.5	0.58	2.42	
230915-076-HE	15/09/23	515	33.7	90	3:15	1	26.4	45.3	56.1	69.3	80	18.5	45.0	51.0	59.5	1.1	0.55	2.35	
230829-365-HE	29/08/23	500	33.5	105	2:45	1	24.6	41.9	48.7	68.7	90	17.0	34.5	46.0	58.0	1.2	0.54	2.39	
230818-643-HE	18/08/23	535	33.5	105	2:45	1	25.1	42.0	52.2	66.8	80	14.0	36.5	45.5	56.0	1.3	0.57	2.35	
230731-091-HE	31/07/23	505	33.6	105	2:30	1	24.1	42.6	52.3	68.7	80	14.5	35.0	42.0	51.5	1.4	0.57	2.45	
230719-439-HE	19/07/23	510	33.8	105	2:45	1	25.3	44.7	54.7	67.1	70	14.0	41.0	49.0	57.5	1.5	0.56	2.35	
230704-729-HE	04/07/23	520	33.6	105	2:30	0	22.9	43.8	53.1	68.5	70	16.0	35.0	45.0	60.5	1.7	0.58	2.38	
230617-001-HE	17/06/23	510	33.6	120	3:00	1	22.0	38.5	52.7	70.4	90	15.5	38.0	47.0	54.5	1.9	0.56	2.33	
230515-608-HE	15/05/23	510	34.1	135	3:30	1	22.2	40.9	51.7	70.7	100	11.5	33.0	42.5	57.5	1.3	0.57	2.36	
230502-180-HE	02/05/23	505	33.8	105	3:00	1	21.2	39.1	52.3	65.7	110	18.5	40.0	48.5	59.5	1.6	0.54	2.32	
230421-499-HE	21/04/23	520	33.7	120	3:30	0	21.4	39.2	49.9	66.8	90	12.5	33.5	39.5	53.5	1.4	0.60	2.32	
230402-983-HE	02/04/23	505	33.6	135	3:15	1	22.4	40.8	50.6	65.6	70	13.0	39.5	44.0	56.5	1.0	0.58	2.31	
230323-333-HE	23/03/23	510	34.0	120	3:00	1	24.2	43.1	51.1	66.6	70	17.0	41.0	49.5	59.0	1.5	0.58	2.49	
230309-656-HE	09/03/23	505	33.7	135	3:00	2	22.7	42.9	52.7	68.0	80	12.5	33.5	44.5	54.5	1.4	0.56	2.35	
230217-807-HE	17/02/23	530	34.0	120	3:00	1	22.9	40.8	49.9	65.3	80	12.0	32.5	40.0	54.0	1.8	0.59	2.43	
230203-221-HE	03/02/23	520	34.2	105	3:15	1	21.8	38.8	49.1	67.2	100	13.0	30.0	42.5	50.5	1.2	0.55	2.28	

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 Analysis 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

Testing Error-Result Not Available

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Raki Harding
Quality System Manager



Portland Works, Portland, Whangarei 0178

Date issued: 24/02/24

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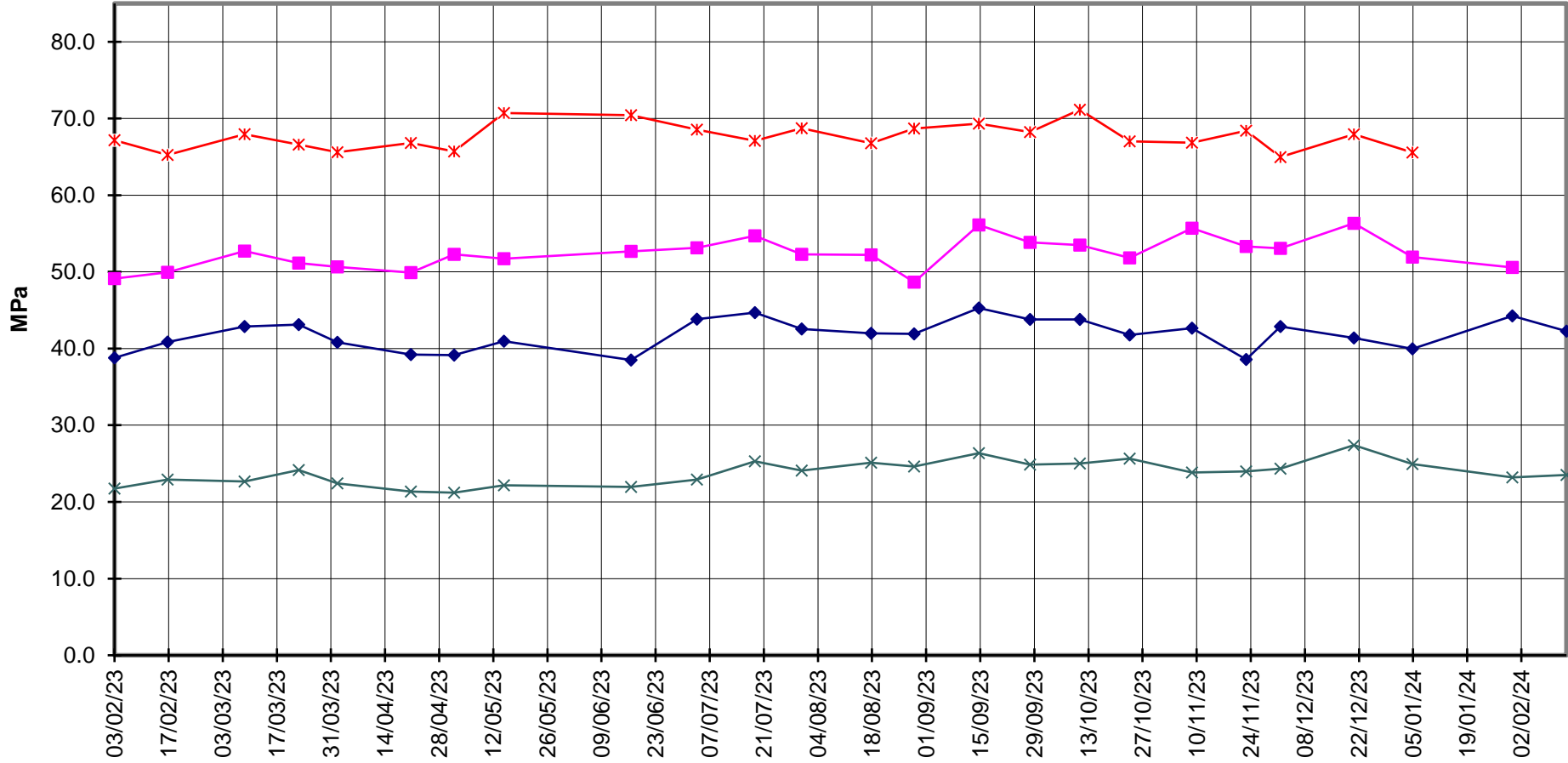


EcoFast® Type HE Cement



Compressive Strength ISO-CEN Mortar

—x— 28 Days —■— 7 Days —◆— 3 Days —x— 1 Day





EcoFast[®] Type HE Cement



Compressive Strength Concrete

—x— 28 Days —■— 7 Days —◆— 3 Days —x— 1 Day —*— Slump

