



Ultracem

NZS 3122:2009 Type GP (General Purpose Portland) & Type HE (High Early Strength)

Shipment # 2308 to 2320



Ship Arrival Date	Shipment #	Terminal	Water %	I-Set min	F-Set h:mm	False mm	Sound mm	SO ₃ * %	NaEq* %	Fine m ² /kg	45µm %	LOI %	I-3D* MPa	I-7D* MPa	I-28D MPa	
29/02/2024	2320	AUCKLAND	27.7	120	3:00	11	1			345	8.6	2.40				
12/02/2024	2319	AUCKLAND	28.0	135	3:15	10	1	2.5	0.54	350	8.0	2.44	36.4	49.0		
16/01/2024	2318	AUCKLAND	28.3	120	3:00	10	2	2.5	0.55	355	6.7	2.46	39.2	51.6		
07/12/2023	2317	AUCKLAND	28.0	105	3:15	15	1	2.5	0.52	345	7.3	2.12	37.4	51.2	67.2	
19/11/2023	2316	AUCKLAND	27.9	120	2:45	10	1	2.5	0.50	350	6.3	2.19	36.3	50.2	65.6	
28/10/2023	2315	AUCKLAND	28.0	120	3:00	10	1	2.6	0.55	350	6.4	2.19	37.8	51.0	65.2	
03/10/2023	2314	AUCKLAND	28.5	120	3:15	16	0	2.6	0.58	350	6.3	2.01	39.3	53.5	69.4	
18/09/2023	2313	AUCKLAND	28.3	120	2:45	11	2	2.6	0.55	350	6.3	1.97	37.6	53.2	66.7	
31/08/2023	2312	AUCKLAND	27.5	120	3:00	13	1	2.6	0.55	350	6.9	2.27	36.5	50.0	63.5	
11/08/2023	2311	AUCKLAND	27.7	135	2:45	13	1	2.7	0.54	350	6.5	2.41	37.7	50.4	66.6	
04/08/2023	2310	AUCKLAND	28.0	135	3:00	10	2	2.6	0.51	345	7.7	2.23	37.7	48.8	63.4	
Mean			28.0	122.7	3:00	11.7	1.2	2.6	0.5	349	7.0	2.2	37.6	50.9	66.0	
StdDev			0.3	9.0	0:11	2.2	0.6	0.1	0.0	3	0.8	0.2	1.0	1.6	2.0	
24/01/2024	2318	TIMARU	28.3	135	3:00	8	1	2.4	0.54	350	6.7	2.24	36.1	47.4		
15/12/2023	2317	TIMARU	28.1	120	2:45	10	0	2.6	0.57	340	6.7	2.33	35.5	49.5	65.0	
26/11/2023	2316	TIMARU	28.0	105	2:45	11	1	2.6	0.54	335	7.9	2.06	38.0	52.9	67.9	
02/11/2023	2315	TIMARU	27.8	120	3:15	7	1	2.6	0.52	345	8.6	1.93	36.3	50.2	64.8	
19/10/2023	2314	TIMARU	28.0	120	2:45	14	0	2.6	0.59	355	6.4	2.05	39.3	52.5	66.7	
25/09/2023	2313	TIMARU	27.8	135	3:15	13	1	2.5	0.57	340	6.8	2.05	39.6	54.4	66.6	
14/09/2023	2312	TIMARU	27.7	105	3:00	10	1	2.6	0.53	350	6.7	2.22	37.3	50.4	64.9	
29/08/2023	2311	TIMARU	27.8	135	3:15	11	1	2.8	0.51	345	8.3	2.14	37.2	51.8	66.5	
13/08/2023	2310	TIMARU	27.4	105	2:45	9	1	2.6	0.48	340	6.7	2.60	38.0	51.3	65.0	
11/07/2023	2309	TIMARU	27.5	120	2:45	11	2	2.6	0.47	335	8.7	2.31	36.6	49.5	65.0	
24/06/2023	2308	TIMARU	27.8	120	3:15	14	1	2.6	0.55	340	8.2	2.25	38.3	48.7	62.8	
Mean			27.8	120.0	2:58	10.7	0.9	2.6	0.5	343	7.4	2.2	37.5	50.8	65.5	
StdDev			0.3	11.6	0:14	2.3	0.5	0.1	0.0	6	0.9	0.2	1.3	2.0	1.4	
NZS 3122:2009 Specifications				minimum	maximum		maximum	maximum	maximum					minimum	minimum	minimum
Type GP				45	6:00		5	3.5	0.64					35		45
Type HE				45	6:00		5	3.5	0.64					25	40	


Holcim New Zealand is registered for the production & distribution of cement in accordance with ISO 9001:2015. Ultracem is a general purpose cement and is tested in accordance with NZS3122:2009 & AS2350:2006. [NOTE: The AS 2350 series of standards cited above were all adopted, with minor amendments, by NZS 3122:2009]. Samples tested as received. This test report may not be reproduced except in full.


Holcim Auckland Laboratory
23 Plumer Street, Auckland, New Zealand

* Cement Australia, Nata Accreditation Numbers: 187, 188
Darra, Brisbane, Australia

Results marked

- * all results in italics are subcontracted.
- ‡ are not accredited, and are outside of the scope of the laboratory.
- XXX are retested results


Claire Ziegler (Senior Laboratory Technician)
Key Technical Person

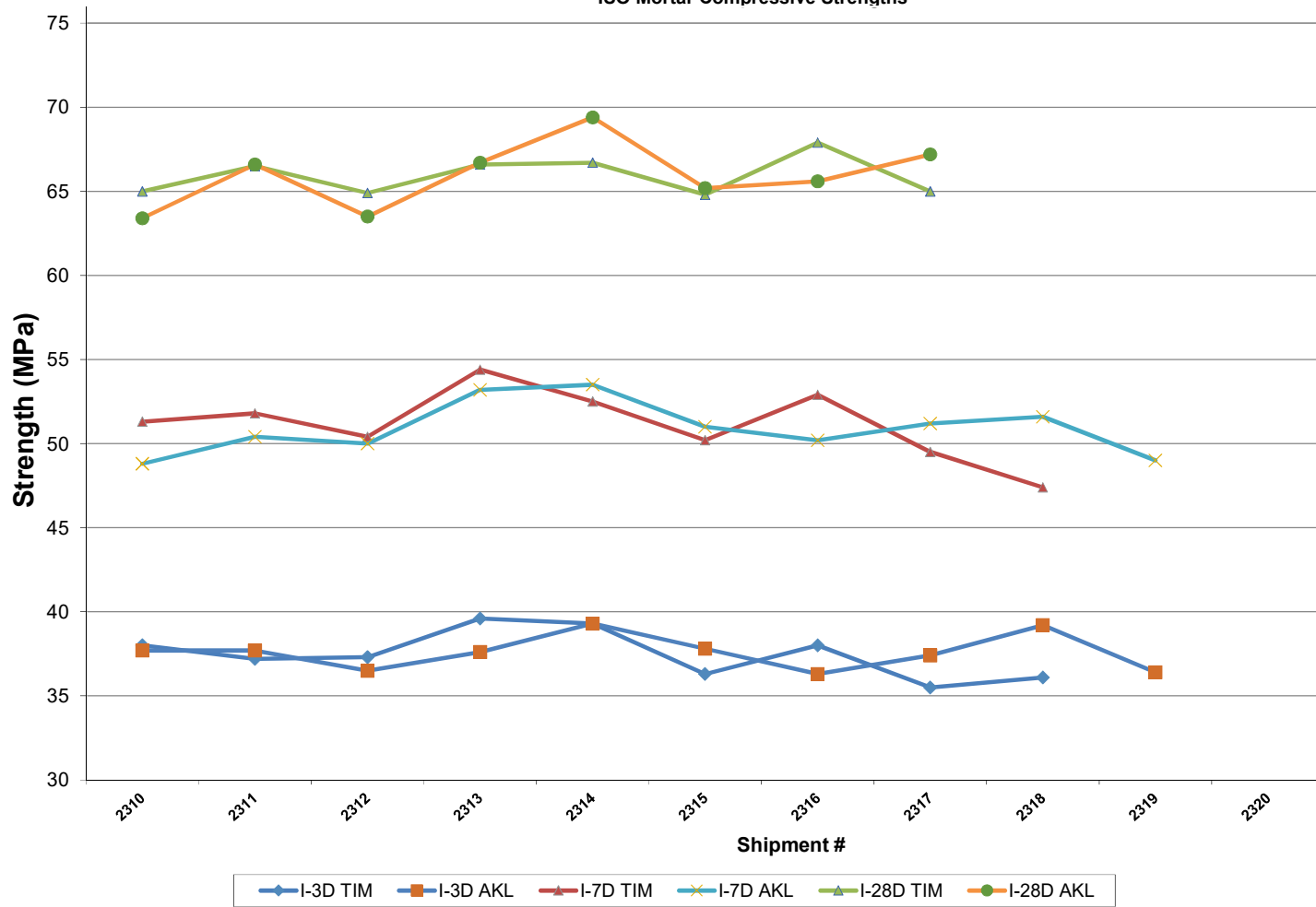

Dave Darlow (National Manager - Sustainable Solutions)
Key Technical Person

Issue Date: 08-Mar-24
Report ID: 24GP2401h

Ultracem

Type GP

ISO Mortar Compressive Strengths



Issue Date: 08-Mar-24
 Report ID: 24GP2401h



Ultracem



NZS 3112:1986 Tests for Concrete Weekly Dispatch Grab Sample Auckland Point of Sale

Sample Date	Temp °C	Slump mm		Slump Loss mm/min	Plastic Density kg/m ³	Air %	Bleed L/m ³	Hardened Density kg/m ³	3 Day	7 Day	28 Day	7-28 Day	
		Initial	30min						60min	MPa	MPa	MPa	MPa
20/02/2024	24.8	100			2390	1.0		2390	29.0	39.0			
14/02/2024	25.1	90			2390	1.0		2400	31.0	40.5			
05/02/2024	23.4	100			2390	1.0		2410	28.0	37.0			
30/01/2024	24.8	90			2410	1.0		2580	30.0	40.0			
22/01/2024	24.5	100	70	50	0.83	2410	1.0	2.0	2400	30.0	40.0		
15/01/2024	24.9	110			2410	1.0		2420	27.0	36.0	44.0	8.0	
10/01/2024	25.0	120			2420	1.0		2430	27.0	35.5	42.0	6.5	
20/12/2023	24.8	150	120	100	0.83	2420	1.0	1.5	2440	27.0	35.0	43.5	8.5
14/12/2023	25.3	110			2420	1.0		2420	28.0	37.5	44.5	7.0	
04/12/2023	22.8	150			2420	1.0		2420	27.0	36.0	43.0	7.0	
01/12/2023	22.5	130			2420	1.0		2420	29.0	37.0	45.0	8.0	
21/11/2023	24.5	140			2420	1.0		2490	28.0	35.0	44.0	9.0	
13/11/2023	22.7	150			2420	1.0		2420	27.0	36.0	42.0	6.0	
06/11/2023	22.8	140			2420	1.0		2420	27.0	34.0	43.0	9.0	
01/11/2023	21.5	150			2410	1.0		2410	27.0	33.0	42.0	9.0	
25/10/2023	21.3	140	110	90	0.80	2420	1.0	1.5	2400	28.0	36.0	45.0	9.0
17/10/2023	21.8	130			2410	1.0		2410	27.0	35.0	43.0	8.0	
09/10/2023	22.2	140			2420	1.0		2460	27.0	36.0	42.0	6.0	
02/10/2023	23.0	100			2420	1.0		2420	30.5	37.0	46.0	9.0	
25/09/2023	21.6	130			2410	1.0		2410	27.0	36.0	45.5	9.5	
Mean	23.5	124			2413	1.0	1.7	2429	28.1	36.6	43.6	8.0	
StdDev	1.4	21.4			10	0.0	0.3	42	1.4	2.0	1.4	1.2	
CoV%									4.9	5.4	3.1		

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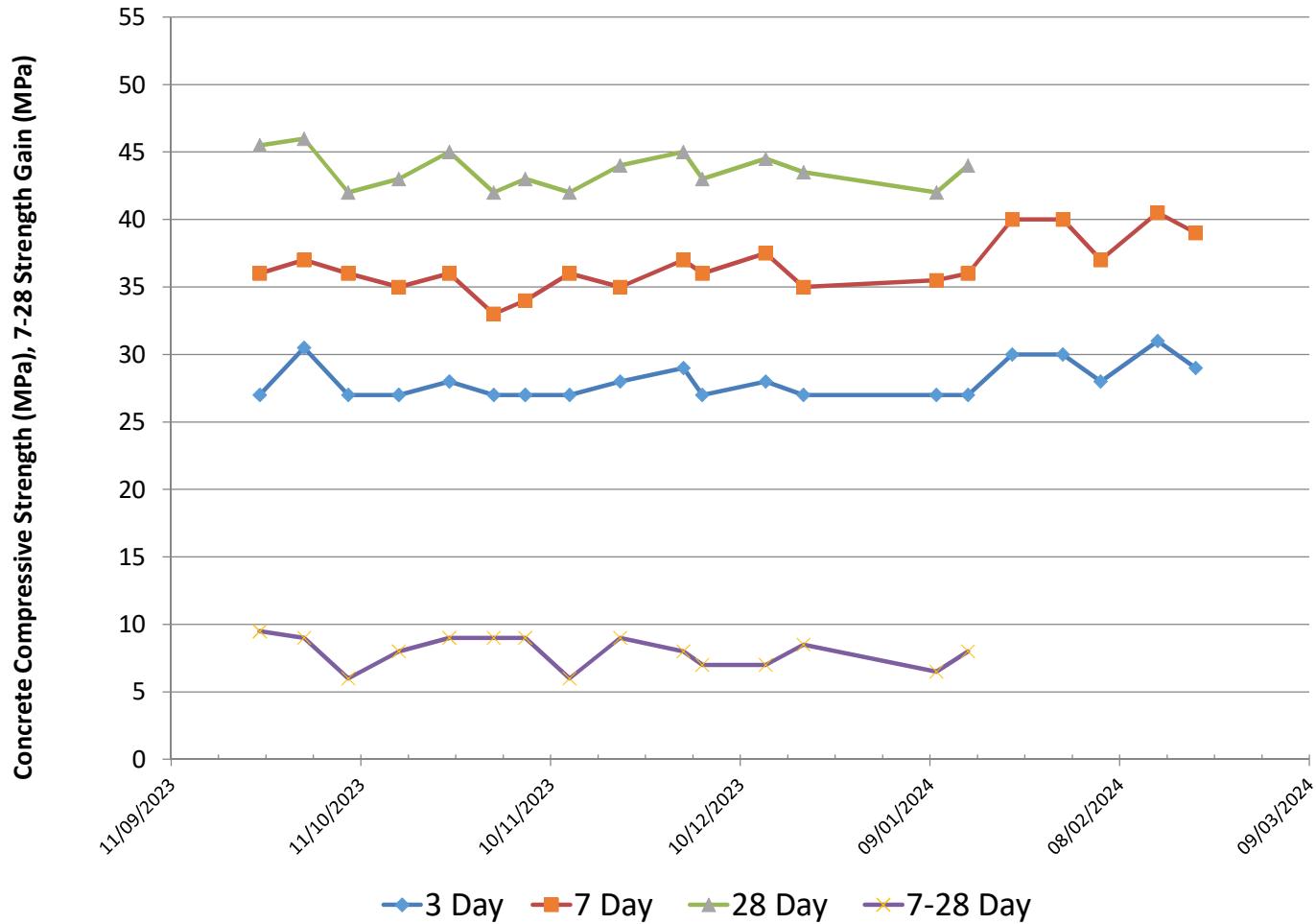
Materials	Cement	H ₂ O	Sand	PAP7	13mm	19mm	w/c	Ad. Mix	Density	Slump
Units	kg/m ³							L/100kg	kg/m ³	mm
Mix	365	193	350	445	360	725	0.53	0.5 - 0.8	2438	120

Results marked

- * are subcontracted.
- ‡ are not accredited, and are outside of the scope of the laboratory.
- XXX are retested results

Issue Date: 08-Mar-24
Report ID: 24GP2401h

Weekly Dispatch Grab Sample Auckland Point of Sale Concrete Compressive Strength



Issue Date: 08-Mar-24
 Report ID: 24GP2401h



Ultracem



NZS 3112:1986 Tests for Concrete

Weekly Dispatch Grab Sample Timaru Point of Sale

Sample Date	Temp °C	Slump mm			Slump Loss mm/min	Plastic Density kg/m ³	Air %	Bleed L/m ³	Hardened Density kg/m ³	3 Day MPa	7 Day MPa	28 Day MPa	7-28 Day MPa
		Initial	30min	60min									
19/02/2024	23.8	120				2400	1.0		2410	29.5	39.0		
15/02/2024	23.3	90				2390	1.0		2390	30.0	40.5		
07/02/2024	22.6	110				2400	1.0		2420	30.0	37.5		
29/01/2024	24.5	100	90	60	0.67	2410	1.0	2.5	2430	30.0	37.0		
22/01/2024	24.2	100				2400	1.0		2410	28.0	37.5		
16/01/2024	23.8	110				2420	1.0		2430	28.5	36.0	44.0	8.0
18/12/2023	24.8	110	80	60	0.83	2420	1.0	2.5	2450	28.5	37.0	45.0	8.0
04/12/2023	24.1	150				2430	1.0		2430	27.0	35.0	42.5	7.5
27/11/2023	22.4	140				2430	1.0		2410	28.0	34.5	43.0	8.5
20/11/2023	22.6	150				2410	1.0		2440	27.0	36.0	44.5	8.5
13/11/2023	23.7	140				2420	1.0		2420	26.5	35.5	42.0	6.5
06/11/2023	22.8	140				2410	1.0		2420	28.0	35.0	45.5	10.5
03/11/2023	21.6	130	120	90	0.67	2420	1.0	2.0	2420	28.0	37.5	44.5	7.0
24/10/2023	22.3	140				2420	1.0		2430	26.0	34.5	43.0	8.5
09/10/2023	22.0	140				2410	1.0		2450	27.0	35.0	41.0	6.0
18/09/2023	21.6	130	100	90	0.67	2420	1.0	1.5	2450	28.0	35.5	45.0	9.5
11/09/2023	21.0	130				2420	1.0		2420	27.5	35.0	43.0	8.0
04/09/2023	21.0	140				2420	1.0		2420	28.0	34.5	45.0	10.5
21/08/2023	20.6	110				2420	1.0		2420	28.0	37.0	45.0	8.0
16/08/2023	20.8	130	110	100	0.50	2400	1.0	1.5	2420	27.0	36.0	44.0	8.0
Mean	22.7	126				2414	1.0	2.0	2425	28.0	36.3	43.8	8.2
StdDev	1.3	17.9				11	0.0	0.5	15	1.2	1.6	1.3	1.3
CoV%										4.1	4.4	3.0	

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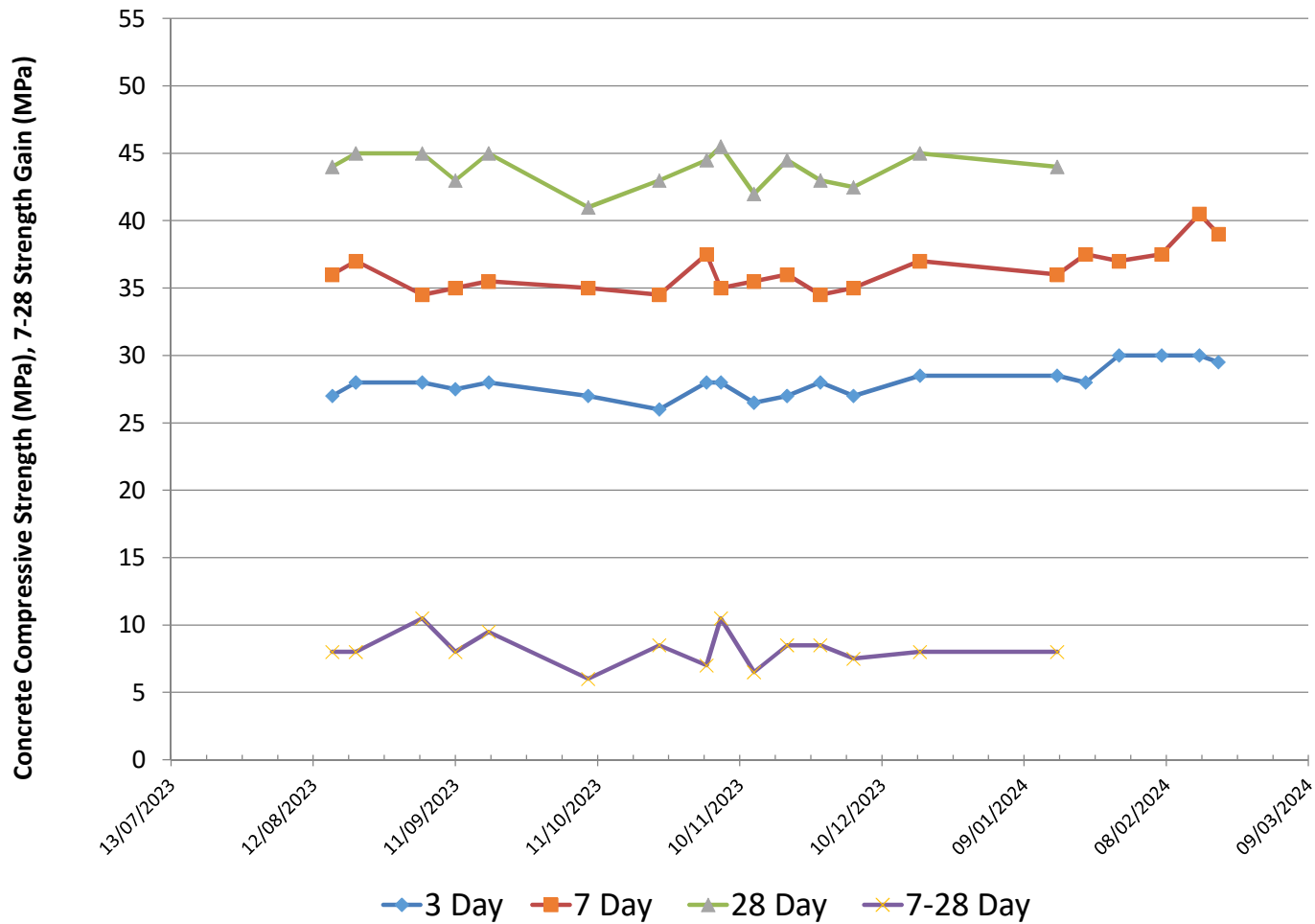
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Units	kg/m ³							L/100kg	kg/m ³	mm
Mix	365	193	350	445	360	725	0.53	0.5 - 0.8	2438	120

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