

TNZ M/4 : 2006 AP40
TEST REPORT



Project : Quality Assurance
 Location : Production Stock
 Client : Road Metals Company Limited
 Contractor : Various
 Sampled by : David Ohs (Road Metals)
 Date sampled : 15 January 2024
 Sampling method : NZS 4407: 2015 (2.4.6.3.2)
 Sample description : NZTA M/4 AP40
 Sample condition : Damp as received
 Source : Waimakariri Quarry

Project No : 6-JRMCO.16/6LC
 Lab Ref No : CH12310
 Client Ref No : Chris Newcombe

Particle Size Distribution		
Sieve Size (mm)	Percentage Passing	
	Sample	Limits
63.0	-	100 - 100
37.5	100	100 - 100
19.0	76	66 - 81
9.5	48	43 - 57
4.75	36	28 - 43
2.36	26	19 - 33
1.18	20	12 - 25
0.600	15	7 - 19
0.300	12	3 - 14
0.150	8	0 - 10
0.075	6	0 - 7

% passing the finest sieve is obtained by difference

Grading Shape Control		
Fraction (mm)	% Within Fraction	
	Sample	Limits
19.0 - 4.75	40	28 - 48
9.5 - 2.36	22	14 - 34
4.75 - 1.18	16	7 - 27
2.36 - 0.600	11	6 - 22
1.18 - 0.300	8	5 - 19
0.600 - 0.150	7	2 - 14

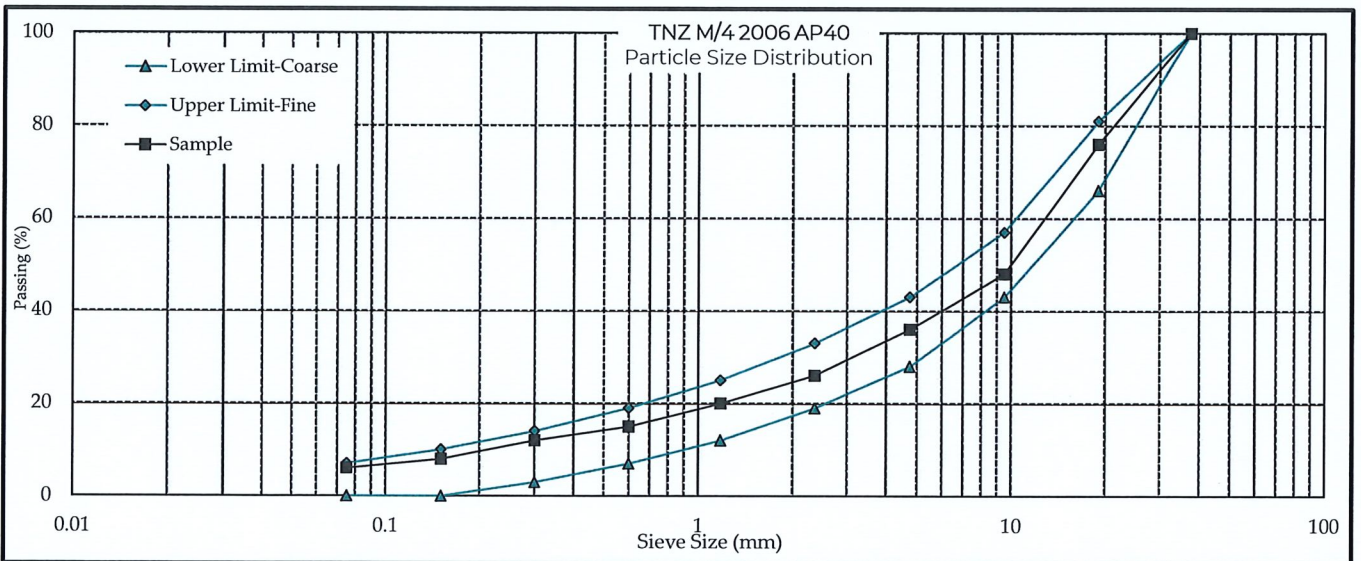
Crushing Resistance		
% Fines @ Spec. Load	-	%
Specification	-	%
Crushing Resistance	-	kN
Nom Aggregate Size	-	mm
Specified Load	-	kN

Broken Faces Content of Aggregate		
Fraction (mm)	Percentage by Weight	
	Sample	Lower Limit
37.5 - 19.0	91	70
19.0 - 9.5	92	70
9.5 - 4.75	98	70

Plasticity Index	
Sample PI	-
Specification	<= 5

Clay Index	
Sample CI	0.5
Specification	<= 3

Sand Equivalent (Washed, Mechanical Shaking)	
Sample SE	-
Specified	>= 40



Test Methods		
Particle Size Distribution	NZS 4407 : 2015 : Test 3.8.1	Broken Faces Content of Aggregate Clay Index
		NZS 4407 : 2015 : Test 3.14 NZS 4407 : 2015 : Test 3.5

Date tested : 20 January 2025
 Date reported : 28 January 2025
 Sampling is covered by IANZ Accreditation
 This report may only be reproduced in full
 All information supplied by Client

Approved Signatory 
 Designation : Laboratory Manager
 Date : 28 January 2025



All tests reported herein have been performed in accordance with the laboratory's scope of accreditation

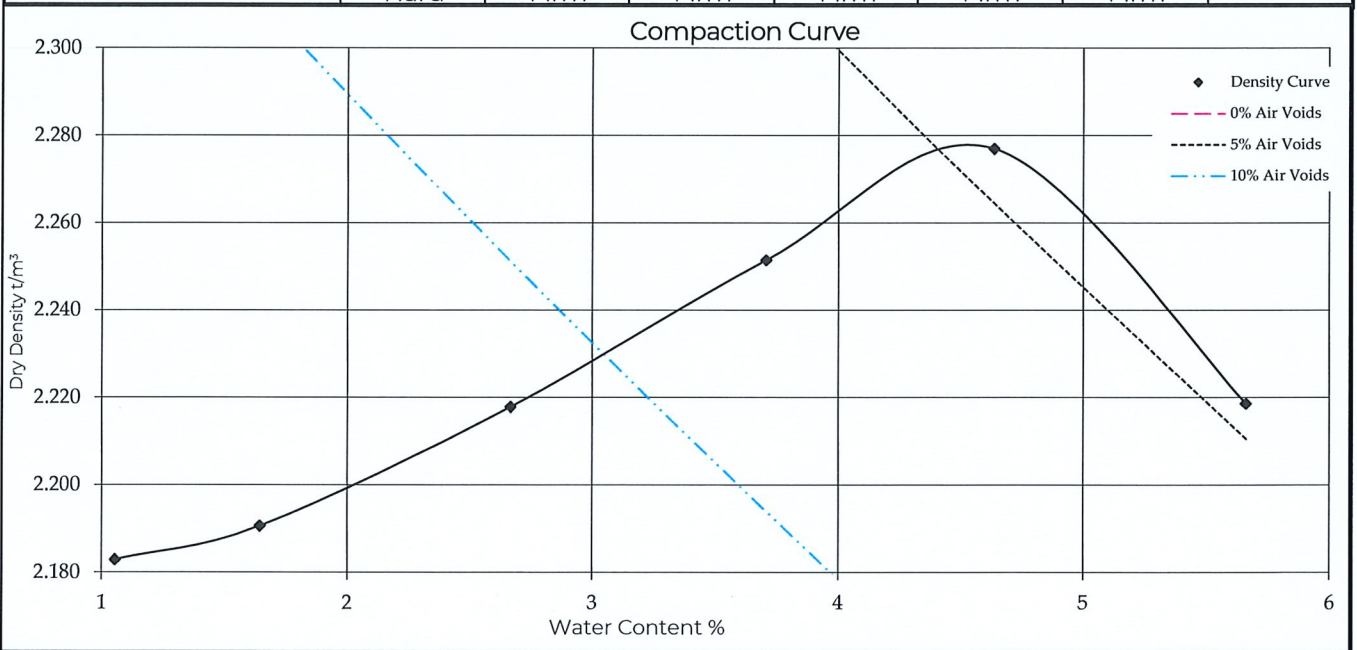
**DRY DENSITY / WATER CONTENT RELATIONSHIP
VIBRATING COMPACTION**



Project : Quality Assurance
 Location : Production Stock
 Client : Road Metals Company Limited
 Contractor : Various
 Sampled by : David Ohs (Road Metals)
 Date sampled : 15 January 2025
 Sampling method : NZS 4407: 2015 (2.4.6.3.2)
 Sample description : NZTA M/4 AP40
 Sample condition : Damp as received
 Solid density : 2.68 t/m³ (Assumed)
 Source : Waimakariri Quarry

Project No : 6-JRMCO.16/6LC
 Lab Ref No : CH12310
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Test Results							
Maximum dry density	2.28	t/m ³	Natural water content	1.6	%		
Optimum water content	4.6	%	Fraction tested	Whole			
Sample ID	-1%	NAT	+1%	+2%	+3%	+4%	
Bulk density t/m ³	2.206	2.227	2.277	2.335	2.383	2.344	
Water content %	1.1	1.6	2.7	3.7	4.6	5.7	
Dry density t/m ³	2.183	2.191	2.218	2.251	2.277	2.219	
Sample condition	Moist Hard	Wet Firm	Wet Firm	Wet Firm	Wet Firm	Saturated Firm	



Test Methods	Notes
Compaction NZS 4402 : 1986 : Test 4.1.3	All information supplied by Client

Date tested : 24 January 2025
 Date reported : 28 January 2025

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Approved Signatory

Designation : Laboratory Manager
 Date : 28 January 2025



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