TNZ M/4: 2006 AP20 **TEST REPORT**

Project:

Quality Assurance

Location:

Production Stock

Client:

Road Metals Company Limited

Contractor:

Various

Sampled by:

Paul Campbell (Road Metals)

Date sampled:

16 May 2025

Sampling method: NZS 4407: 2015 (2.4.6.3.2)

Sample description: NZTA M/4 AP20 Sample condition:

Damp as received

Source:

Yaldhurst Quarry

Project No:	6-JRMCO.16/6LC
Lab Ref No :	CH12743
Client Ref No :	RM45436

Particle Size Distribution					
Sieve Size	Percentage Passing				
(mm)	Sample	Limits			
63.0	-	100 - 100			
37.5	-	100 - 100			
19.0	100	100 - 100			
9.5	68 55 - 75				
4.75	40 33 - 55				
2.36	30 22 - 42				
1.18	24 14 - 31				
0.600	21 8 - 23				
0.300	16 5 - 16				
0.150	10 0 - 12				
0.075	7 0-8				
% passing the finest sieve is obtained by difference					

Grading Shape Control					
Fraction	% Within Fraction				
(mm)	Sample	Limits			
9.5 - 2.36 4.75 - 1.18 2.36 - 0.600 1.18 - 0.300 0.600 - 0.150	38 16 9 8 11	20 - 46 9 - 34 6 - 26 3 - 21 2 - 17			

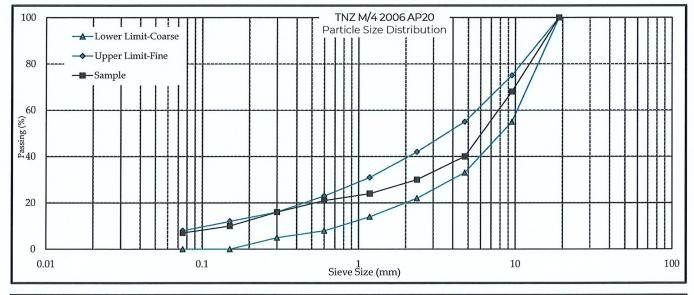
Crushing Resistance					
% Fines @ Spec. Load	-	%			
Specification	-	%			
Crushing Resistance	-	kN			
Nom Aggregate Size	-	mm			
Specified Load	-	kN			

Broken Faces Content of Aggregate				
Fraction	Fraction Percentage by Weig			
(mm)	Sample Lower Limit			
19.0 - 9.5 9.5 - 4.75	79 73	70 70		

Plasticity Index		
Sample PI	Non Plastic	
Specification	<= 5	
Specification		

Clay Index	
Sample CI	0.5
Specification	<= 3

Sand Equivalent (Washed, Mechanical Shaking)			
Sample SE	23		
Specified	>= 40		



Test Methods

Plasticity Index Sand Equivalent NZS 4407: 2015: Test 3.4 NZS 4407: 2015: Test 3.6

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

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Date tested: Date reported: 27 May 2025

9 June 2025

Sampling is covered by IANZ Accreditation This report may only be reproduced in full All information supplied by Client

Approved Signatory

Particle Size Distribution

Designation:

Laboratory Manager

Date:

9 June 2025

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

PF-LAB-040 (19/01/2022)

Telephone 03 343 0739 Website www.wsp.com/nz

Christchurch (Hayton Rd)

Quality Management Systems Certified to ISO 9001

52C Hayton Rd

PO Box 1482, Christchurch Mail Centre, 8140, Christchurch, New Zealand

DRY DENSITY / WATER CONTENT RELATIONSHIP VIBRATING COMPACTION



Project:

Quality Assurance

Location:

Production Stock

Client:

Road Metals Company Limited

Contractor:

Various

2.68

Sampled by:

Paul Campbell (Road Metals)

Date sampled:

16 May 2025

Sampling method:

NZS 4407: 2015 (2.4.6.3.2)

Sample description:

NZTA M/4 AP20

Sample condition:

Damp as received

Solid density:

t/m³ (Assumed)

Project No:

6-JRMCO.16/6LC

Lab Ref No:

CH12743

Source:	Yaldhurs	t Quarry		Client Ref	No:	RM45436	
			Test Results				
Maximum dry density	2.28	t/m³			ter content	5.1	%
Optimum water conte	nt 6.0	%		Fraction te	sted	Whole	
Sample ID	-2%	-1%	Nat	+1%	+2%		
Bulk density t/n	n ³ 2.312	2.343	2.382	2.407	2.401		
Water content %	3.2	4.1	5.1	6.0	7.0		
Dry density t/n	n ³ 2.240	2.251	2.265	2.270	2.243		
Sample condition	Moist	Wet	Wet	Wet	Saturated		
	Firm	Firm	Firm	Firm	Firm		
2.000			Compaction	on Curve			
2.300				\			◆ Density Curve — - 0% Air Voids 5% Air Voids
2.280 -			A			_	· · — 10% Air Voids

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

Water Content %

Date tested: 29 May 2025 Date reported: 9 June 2025

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Approved Signatory

4

Date:

2.260

2.240

2.220

3

Dry Density

Designation: Laboratory Manager

9 June 2025

VG LABORATO

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

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PF-LAB-027 (19/01/2022)

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WSP

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