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

Project:

Quality Assurance

Location:

**Production Stock** 

Client:

Road Metals Company Limited

Contractor:

Various

Sampled by:

Steve

Date sampled:

28 November 2024

Sampling method: NZS 4407:2015 (2.4.6.3.2)

Sample condition: Damp as received

Sample description: NZTA M/4 AP20

Source:

Rolleston Quarry

Project No:

6-JRMCO.16/6LC

Lab Ref No:

CH12155

Client Ref No:

915-161

Particle Size Distribution					
Sieve Size	Percenta	age Passing			
(mm)	Sample	Limits			
63.0	-	100 - 100			
37.5	-	100 - 100			
19.0	100	100 - 100			
9.5	63	55 - 75			
4.75	40 33 - 55				
2.36	28 22 - 42				
1.18	20 14 - 31				
0.600	16 8 - 23				
0.300	<b>13</b> 5 - 16				
0.150	9 0 - 12				
0.075	7 0-8				
% passing the finest sieve is obtained by difference					

Gradi	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	35 20 12 7 7	20 - 46 9 - 34 6 - 26 3 - 21 2 - 17				

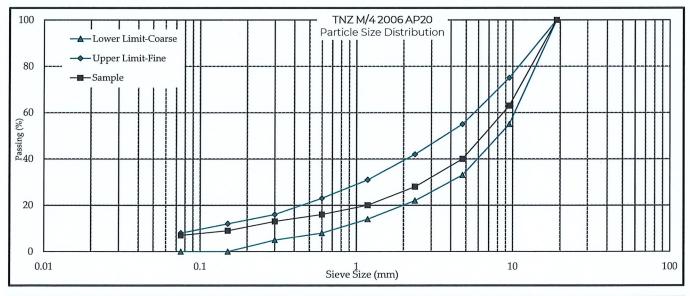
Crushing Resistance			
% Fines @ Spec. Load	-	%	
Specification		%	
Crushing Resistance	-	kN	
Nom Aggregate Size	-	mm	
Specified Load	-	kN	

Broken Faces Content of Aggregate				
Fraction	Fraction Percentage by Weig			
(mm)	Sample	Lower Limit		
19.0 - 9.5 9.5 - 4.75	85 78	70 70		

Plasticity Index			
Sample PI	Non Plastic		
Specification	<= 5		

Clay Inc	dex
Sample CI	1.0
Specification	<= 3

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



Test Methods Plasticity Index

Particle Size Distribution

NZS 4407 : 2015 : Test 3.4 NZS 4407 : 2015 : Test 3.8.2

Broken Faces Content of Aggregate Clay Index

NZS 4407 : 2015 : Test 3.14

NZS 4407 : 2015 : Test 3.5

Date tested: Date reported:

Designation:

3 December 2024 17 December 2024 Sampling is not covered by IANZ Accreditation. Results apply only to sample tested.

This report may only be reproduced in full

All information supplied by Client

**Approved Signatory** 

Senior Civil Engineering Technician

17 December 2024



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

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

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WSP

Date:

Christchurch (Hayton Rd)

Quality Management Systems Certified to ISO 9001

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

## DRY DENSITY / WATER CONTENT RELATIONSHIP VIBRATING COMPACTION



Project:

Quality Assurance

Location:

Production Stock

Client:

Road Metals Company Limited

Contractor : Sampled by : Various Steve

Date sampled :

28 November 2024

Sampling method:

NZD 4407:2015 (2.4.6.3.2)

Sample description : Sample condition : NZTA M/4 AP20

Solid density:

Damp as received

Source:

2.68 t/m³ (Assumed) Rolleston Quarry Project No: Lab Ref No: 6-JRMCO.16/6LC

CH12155

Client Ref No: 915-161

		T	est Results				
Maximum dry density Optimum water content	2.28 5	t/m³ %		Natural war Fraction tes		3.3 Whole	%
Sample ID	Nat	+1%	+2%	+3%	+4%		
Bulk density t/m³	2.279	2.338	2.407	2.406	2.386		
Water content %	3.3	4.2	5.1	5.8	6.5		
Dry density t/m³	2.206	2.242	2.290	2.275	2.240		
Sample condition	Firm Moist	Hard Moist	Hard Wet	Hard Wet	Firm Saturated		
2.340	1 110100	, , , , , ,	Compactio				
2.320							Density Curve  - 0% Air Voids 5% Air Voids 10% Air Voids
2.260 - 2.240 - 2.240 - 2.240 - 2.240 - 2.240							
2.220				1			
2.200	* ***						
2.180		11111					
2 3	3	4 Water (	5 Content %		6	7	8

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

Date tested: 4 December 2024 Date reported: 17 December 2024 Sampling is not covered by IANZ Accreditation. Results apply only to sample tested. This report may only be reproduced in full

**Approved Signatory** 

RPS

Designation: Senior Civil Engineering Technician

Date:

17 December 2024

ACCREDITED

Test results indicated as not accredited are outside the scope of the laboratory's accreditation

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

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## PLASTICITY INDEX FOR AGGREGATES **TEST REPORT**



Project:

Quality Assurance

Location:

**Production Stock** 

Client:

Road Metals Company Limited

Contractor:

Various

Sampled by:

Steve

Date sampled:

28/11/24

Sampling method:

NZS 4407:2015 (2.4.6.3.2)

Sample description:

NZTA M/4 AP20

Sample condition:

Damp as received

Source:

Rolleston Quarry

Project No:

6-JRMCO.16/6LC

Lab Ref No:

CH12155

Client Ref No:

915-161

	Test Results	
Client Ref No:	915-161	
Cone penetration limit :	21	
Plastic limit :	Unable to Roll Threads	
Plasticity index :	NP	
Sample fraction :	Fraction passing 425µm test sieve	

Test Methods

Cone Penetration

NZS 4407: 2015: Test 3.2

Plastic Limit Plasticity Index NZS 4407: 2015: Test 3.3 NZS 4407: 2015: Test 3.4

Date tested: 12 December 2024

Sampling is not covered by IANZ Accreditation. Results apply only to sample tested.

Date reported: 17 December 2024

This report may only be reproduced in full

All information supplied by Client

Approved Signatory

Designation: Senior Civil Engineering Technician

Date:

17 December 2024

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PF-LAB-053 (19/01/2022)

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