

Technical Data Sheet Otaki Quarry

Basecourse Aggregate

Source Rock: Land deposit & river Alluvial Greywacke

Source Rock Characteristics	Test Method	Value
Crushing Resistance	NZS4407:1991 test 3.10	@ 130kN < 5% @230kN < 5%
Weathering Resistance	NZS 4407:1991 test 3.11	AA – BB
Solid Density	NZS4407:1991 3.7.1	> 2680 kg/m ³
Los Angeles Abrasion (LAA)	ASTM C535-09	< 20

Manufactured General All Passing Aggregate (BC40/GAP65)

Test	Test Method	Value
Max Dry Density	NZS4402:1986 test 4.1.3	> 2.28 T/m ³
Optimum Water Content		4% -6%

Basecourse Aggregate (TNZ40 M4)

Test	Test Method	Value
Max Dry Density	NZS4402:1986 test 4.1.3	> 2.28 T/m ³
Optimum Water Content		4% - 6%

Coarse Aggregate

Product	SE	63.0mm	37.5mm	19.0mm	9.5mm	4.75mm	2.36mm	0.075mm
GAP65	>25	100%	90% - 70%	65% - 45%	55% - 30%	45% - 25%	35% - 20%	< 10%
BC40	>25		100%	95% - 75%	60% - 40%	40% - 20%	25% - 15%	< 10%
TNZ 40	>40		100%	66 – 81%	43 – 57%	28 – 43%	19 – 33%	< 7%

Concrete Aggregate

Source Rock: Land deposit & river Alluvial Greywacke

Source Rock Characteristics	Test Method	Value
Crushing Resistance	NZS3111 Section 14	>400kN to produce 10% Fines
Weathering Resistance	NZS3111 Section 15	AA - BA

Coarse Aggregate

Test	Test Method	Value
Unit Mass	Loose Poured - SSD* -voids	NZS3111 Section 10
Absorption	NZS3111 Section 12	<1.5%
Density		2610 Kg/m ³
		2640 Kg/m ³

* Saturated Surface Dry

Concrete Sand

Test	Test Method	Value
Unit Mass	NZS3111 Section 10	1700 Kg/m ³
		40%
Absorption	NZS3111 Section 16	<2%
Density		2600 Kg/m ³
		2630 Kg/m ³

* Saturated Surface Dry

Coarse Aggregate

Product	Cleanliness Value	37.5mm	26.5mm	19.0mm	13.2mm	9.5mm	4.75mm
20mm	>85		100%	100% - 85%	45% - 10%	10% - 0%	<5%
13mm	>85			100% - 100%	100% - 85%	70% - 40%	<10%

Concrete Sand

Product	Moisture Content	SE	6.7mm	4.75m	2.36m	1.18m	0.6mm	0.3mm	0.15m	0.075 mm
Concrete Sand		> 70	100%	100% - 95%	85% - 60%	70% - 50%	50% - 40%	40% - 20%	20% - 5%	< 5%

Asphalt Aggregate TNZ M/6

Source Rock: Land deposit & river Alluvial Greywacke

Source Rock Characteristics	Test Method	Value
Crushing Resistance	NZS4407:1991 test 3.10	<5% - 230kN
Weathering Resistance	NZS 4407:1991 test 3.11	AA
Polished Stone Value	BS EN 1097-8:2009	>53
Weak Particles	AS1141.32:1995	<1%

Coarse Aggregate

Test	Test Method	Value
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Absorption		ASTM C127-07	< 1%
Density -Dry			> 2.68 T/m3
-SSD*			> 2.70 T/m3

* Saturated Surface Dry

Coarse Aggregate

Product	CV	ALD	19.0 mm	13.2mm	9.5mm	6.7mm	4.75mm	2.36mm
Grade 3	>80	8.5 – 10.0mm	100 %	100% - 80%	35% - 25%	<5%	0%	
Grade 4	>80	6.0 – 7.0mm		100%	100% - 80%	<10%	<5%	0%
Grade 5	>80	5.0 – 6.0mm		100%	100% - 95%	75% - 50%	8% - 0%	2% - 0%

All testing carried out at an IANZ accredited laboratory. Test results available upon request. All results correct at time of publication, July 2012.