

AGGREGATE PROPERTIES DATA SHEET

Unit :-	Eysey Manor
Address :-	Eysey
	Nr. Cricklade
	Swindon
	Wiltshire SN6 6LP
Tel :-	01793 759392



South West Region
Stancombe Lane
Flax Bourton
Bristol, BS48 3QD
Tel: 01275 464441
Type of deposit / Rock Type
Limestone Sand & Gravel Deposit
Aggregate Colour :- Pale Yellow/Buf

		Test Standard			Test Result			Fraction Size Submitted		
Los Angeles Abrasion	LA	EN 1097-2			38			10/20mm		
micro-Deval	MDE	EN 1097-1 (Wet Condition)			30			10/20mm		
Aggregate Abrasion Value	AAV	EN 1097-8			7.2			10/20mm		
Magnesium Sulphate Soundness	MSSV	EN 1367-2			19			10/20mm		
Polished Stone Value	PSV	EN 1097-8			48			10/20mm		
				Blended 0/4mm Washed Concrete Sand MP	0/4mm Washed Concrete Sand CP	2/6mm Single Size	4/10mm Single Size	10/20mm Single Size	20/40mm Single Size	4/20mm Graded
Apparent Particle Density		EN 1097-6	Mg/m³	2.69	2.69	2.69	2.69	2.70	2.68	2.72
S.S.D. Density		EN 1097-6	Mg/m³	2.61	2.61	2.52	2.51	2.57	2.59	2.55
Oven Dry Density (Pp)		EN 1097-6	Mg/m³	2.57	2.56	2.41	2.40	2.50	2.53	2.46
Water Absorption		EN 1097-6	%	1.70	1.9	4.3	4.4	3.0	2.3	3.8
EN Bulk Density - Loose (Pb)		EN 1097-3	Mg/m³	1.56	1.59	1.34	1.33	1.29	1.17	1.32
EN Bulk Density - Compacted(Pb)		EN 1097-3	Mg/m³	1.72	1.72	1.51	1.51	1.50	1.40	1.50
Voids - Loose (V)	$V = \frac{(Pp - Pb)}{Pp} \times 100$	Calculated from LBD (Pb) & Oven Dry Density (Pp); EN 1097-3	%	39	38	44	45	48	54	47
Voids - Compacted (V)	$V = \frac{(Pp - Pb)}{Pp} \times 100$	Calculated from BD (Pb) & Oven Dry Density (Pp); EN 1097-3	%	33	33	37	37	40	45	39
BS Loose Bulk Density of Aggregate		BS 812-2	Mg/m³	1.56	1.59	1.35	1.32	1.28	1.16	1.31
BS Compacted Bulk Density of Aggregate		BS 812-2	Mg/m³	1.72	1.73	1.51	1.51	1.51	1.41	1.50
Flakiness Index	FI	EN 933-3	-	n/a	n/a	12	22	30	56	26
Shape Index	SI	EN 933-4	-	n/a	n/a	15	26	33	59	29
Drying Shrinkage (%)	** Next due in 2022	BS EN 1367-4	%	n/a	n/a	n/a	n/a	0.027	n/a	0.023
Methylene Blue	MB	BS EN 933-9	g/kg	0.8	0.8	n/a	n/a	n/a	n/a	n/a
Carbon Dioxide	CO₂	BS EN 196-2	%	24.38	29.82	41.68	41.84	41.78	41.48	42.11
Calcium Carbonate Equivalent	CaCO₃	BS EN 196-2	%	55.42	67.76	94.73	95.10	94.95	94.28	95.71
Water Soluble Chloride / Chloride ION Content	C	EN 1744-1	%	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
pH Value	-	BS 1377-3	-	8.7	8.6	8.7	8.8	8.7	8.7	8.7
Acid Soluble Sulphate Content	SO₃	EN 1744-1 + AI	%	0.1	0.1	<0.1	<0.1	<0.1	0.1	<0.1
Total Sulfur Content	S	EN 1744-1	%	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mass of Lightweight Contaminators	MLPC	EN 1744-1	%	<0.1	<0.1	n/a	n/a	n/a	n/a	n/a
Loss on Ignition		EN 1744-1	%	0.8	0.9	n/a	n/a	n/a	n/a	n/a
Modified MDE: Block Paving	Diff passing 0.250	BS 7533-3 + AI	%	17.1	9.9	n/a	n/a	n/a	n/a	n/a
	Diff passing 0.125		%	7.3	5.0	n/a	n/a	n/a	n/a	n/a
	Effective size		mm	0.150	0.150	n/a	n/a	n/a	n/a	n/a

** Test every 3 years if results are consistently below 0.05%; Test every 5 years if results are consistently below 0.03%

PETROGRAPHIC ANALYSIS
EN 932-2
0/4mm Coarse & 0/4mm Med Blended Sands
See separete report (Due every 3 years)
Current Petrographic report dated:
17th October 2016
Next Petrographic report due:
May 2019
(to keep in line with testing)

Quantification of Metals & Hexavalent Chromium: BS EN 1744-1 (mg/kg)					
	0/4 BLEND	0/4 COARSE		0/4 BLEND	0/4 COARSE
Arsenic	12	9.4	Lead	5.9	5.0
Cadnium	0.1	0.1	Antimony	n/a	n/a
Chromium	6.6	6.7	Selenium	<0.5	<0.5
Copper	4	3.9	Tin	n/a	n/a
Boron, Water Soluble	0.7	0.3	Uranium	n/a	n/a
Mercury	<0.005	<0.005	Zinc	23	21
Molybdenum	n/a	n/a	Hexavalent Chromium	<1.0	<1.0
Nickel	8.2	6.6			

Chemical Oxide Analysis - X-Ray Flourescence		
	0/4mm Med Blend	0/4mm Coarse
Al₂O₃	0.80	0.60
Fe₂O₃	2.63	1.88
TiO₂	0.03	0.02
MgO	0.47	0.49
SiO₂	18.30	9.16
CaO	41.62	47.37
K₂O	0.17	0.07
Na₂O	0.04	0.05
P₂O₅	0.10	0.09
SO₃	0.08	0.11
MnO	0.08	0.05
BaO	<0.01	<0.01
Loss on Ignition	34.6	39.1

Clay Contents - X-Ray Diffraction		
	0/4mm Med Blend	0/4mm Coarse
Hematite	n/a	n/a
Illite & Mica	n/a	n/a
Kaolinite	n/a	n/a
Chlorite	n/a	n/a
Goethite	1.3	1.4
K Feldspar	n/a	n/a
Plagioclase	n/a	n/a
Calcite	82.0	90.0
Tourmaline	n/a	n/a
Pyrite	n/a	n/a
Quartz	16.7	8.6
Total	100	100

TRL INFORMATION		0/4 BLEND MP SAND	0/4 COARSE SAND
Total Potential Sulfate Content (%) SO₄	BS 1377:ICP-AES Method 17 (TRL Report 447 Test # 4)	0.09	0.09
Total Sulfur Content (%)		0.03	0.03
Acid Soluble Sulfate Content (%) SO₄	BS 1377:ICP-AES Method 4 (TRL Report 447 Test # 2)	0.07	0.08
Water Soluble Sulfate Content (mg/l)	BS 1377:ICP-AES Method 2 (TRL Report 447 Method 1)	19.00	27.00
Oxidisable Sulfides (%) SO₄	TRL Report 447 Test # 2 & Test # 4	0.02	0.01

Approved UKAS Laboratories	For Tarmac Quarry Materials	
Test Houses	Accreditation No. 0989	Kevin Cox
Celtest	Accreditation No. 0494	Area Technical Supervisor
Corus	Accreditation No. 2007	07872 672913