

Kincardine Offshore Windfarm Environmental Statement Appendix A: Particle Size Analysis Report

February 2016

ATKINS

Analytical Report

on the Particle Size Distribution of Samples

FOR:

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INVESTORS IN PEOPLE



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Job and Sample Information:	
Job No(s):	2014-20632
Client Order No/Reference:	
Date Sample(s) Received:	3/3/15
Lab Code	Client Code
See Table	See Table

Methods

Methods	Accreditation Reference
Particle Size Analysis using Laser Diffraction	DM011

Results

Customer Code	Laboratory Code	>32mm (%)	<32mm >2mm (%)	<2mm (%)
6/EAB/2013 Mar 2013 12143 TV6	1201092	0	0.19	99.81
8/KINCSS/2014 Mar 2014 18251 TV9	1201093	0	0.97	99.03
9/KINCSS/2014 Mar 2014 18252 TV10	1201094	0	0.44	99.56
10/EAB/2013 Mar 2013 12144 TV10	1201095	0	0.05	99.95
23/KINCSS/2014 Mar 2014 18266 TV27	1201096	0	0.37	99.63
28/KINCSS/2014 Mar 2014 18271 TV33	1201097	0	3.89	96.11
31/KINCSS/2014 Mar 2014 18274 TV38	1201098	0	7.92	92.08
34/KINCSS/2014 Mar 2014 18277 TV41	1201099	0	1.73	98.27
38/KINCSS/2014 Mar 2014 18281 TV45	1201100	0	4.59	95.41
7/KINCSS/2014 Mar 2014 18250 TV8	1201126	0	0.49	99.51

See Appendix
(Ten Pages)

Note:

Samples will be stored for a period of eight weeks following completion of analysis and acceptance of analytical report(s) at no extra cost after which samples will be disposed of unless a specific instruction is given (with the sample analysis request/order) to store the sample beyond this period. Extended storage charges will apply.

Result Analysis Report

Laboratory Code
1201092 6/EAB/2013 Mar 2013
12143 TV6

Measured:
12 March 2015 09:39:54

Sample Source & type:
Supplier = Atkins Limited

Measured by:
analy

Analysed:
12 March 2015 09:39:55

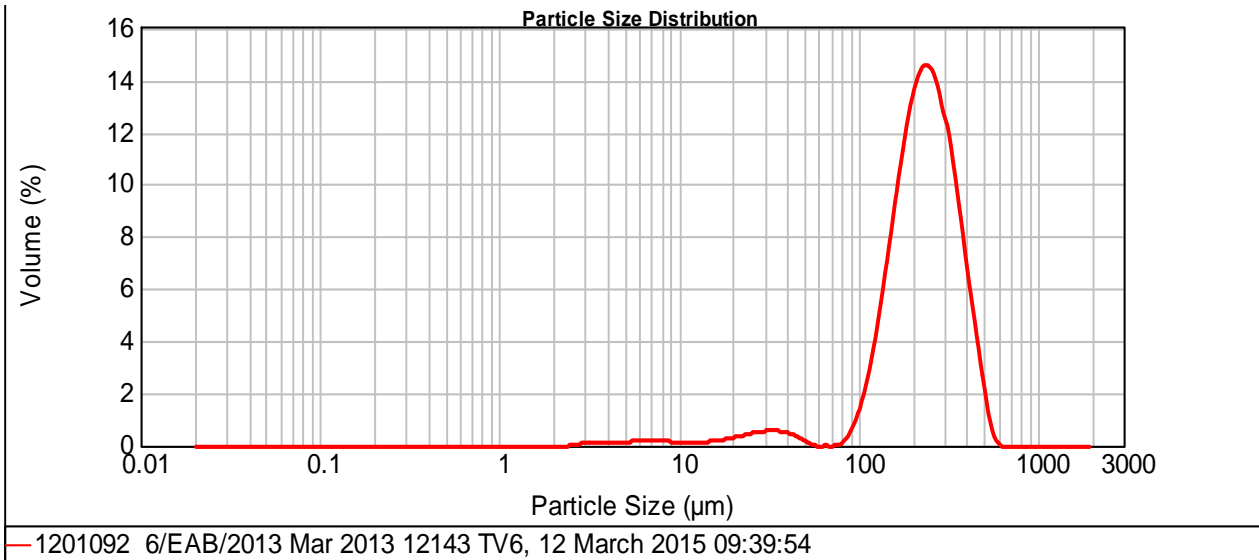
Sample bulk lot ref:
1201092 = Run 1

Result Source:
Measurement

Particle Name: Default	Accessory Name: Hydro 2000G (A)	Analysis model: General purpose	Sensitivity: Normal
Particle RI: 1.520	Absorption: 0.1	Size range: 0.020 to 2000.000 um	Obscuration: 8.65 %
Dispersant Name: Water	Dispersant RI: 1.330	Weighted Residual: 0.941 %	Result Emulation: Off

Concentration: 0.1528 %Vol	Span : 1.081	Uniformity: 0.347	Result units: Volume
Specific Surface Area: 0.0489 m ² /g	Surface Weighted Mean D[3,2]: 122.744 um	Vol. Weighted Mean D[4,3]: 240.711 um	

d(0.1): 128.122 um d(0.5): 231.390 um d(0.9): 378.321 um



Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.13	50.238	0.05	355.656	6.12
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.12	56.368	0.00	399.052	4.18
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.12	63.246	0.00	447.744	2.43
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.11	70.963	0.00	502.377	0.77
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.11	79.621	0.00	563.677	0.04
0.036	0.00	0.252	0.00	1.783	0.00	12.619	0.11	89.337	0.62	632.456	0.00
0.040	0.00	0.283	0.00	2.000	0.00	14.159	0.12	100.237	1.39	709.627	0.00
0.045	0.00	0.317	0.00	2.244	0.00	15.887	0.15	112.468	2.57	796.214	0.00
0.050	0.00	0.356	0.00	2.518	0.00	17.825	0.19	126.191	4.09	893.367	0.00
0.056	0.00	0.399	0.00	2.825	0.04	20.000	0.25	141.589	5.88	1002.374	0.00
0.063	0.00	0.448	0.00	3.170	0.07	22.440	0.32	158.866	7.70	1124.683	0.00
0.071	0.00	0.502	0.00	3.557	0.07	25.179	0.38	178.250	9.35	1261.915	0.00
0.080	0.00	0.564	0.00	3.991	0.09	28.251	0.42	200.000	10.51	1415.892	0.00
0.089	0.00	0.632	0.00	4.477	0.10	31.698	0.44	224.404	10.99	1588.656	0.00
0.100	0.00	0.710	0.00	5.024	0.12	35.566	0.41	251.785	10.69	1782.502	0.00
0.112	0.00	0.796	0.00	5.637	0.13	39.905	0.33	282.508	9.66	2000.000	0.00
0.126	0.00	0.893	0.00	6.325	0.13	44.774	0.21	316.979	8.03		
0.142	0.00	1.002	0.00	7.096	0.13	50.238		355.656			

Operator notes: 2014-20632

Result Analysis Report

Laboratory Code

1201093 8/KINCSS/2014 Mar 2014
18251 TV9

Measured:

12 March 2015 10:07:13

Sample Source & type:

Supplier = Atkins Limited

Measured by:

analy

Analysed:

12 March 2015 10:07:14

Sample bulk lot ref:

1201093 = Run 1

Result Source:

Measurement

Particle Name:

Default

Accessory Name:

Hydro 2000G (A)

Analysis model:

General purpose

Sensitivity:

Normal

Particle RI:

1.520

Absorption:

0.1

Size range:

0.020 to 2000.000 um

Obscuration:

8.86 %

Dispersant Name:

Water

Dispersant RI:

1.330

Weighted Residual:

0.967 %

Result Emulation:

Off

Concentration:

0.1326 %Vol

Span :

1.301

Uniformity:

0.403

Result units:

Volume

Specific Surface Area:

0.0573 m²/g

Surface Weighted Mean D[3,2]:

104.641 um

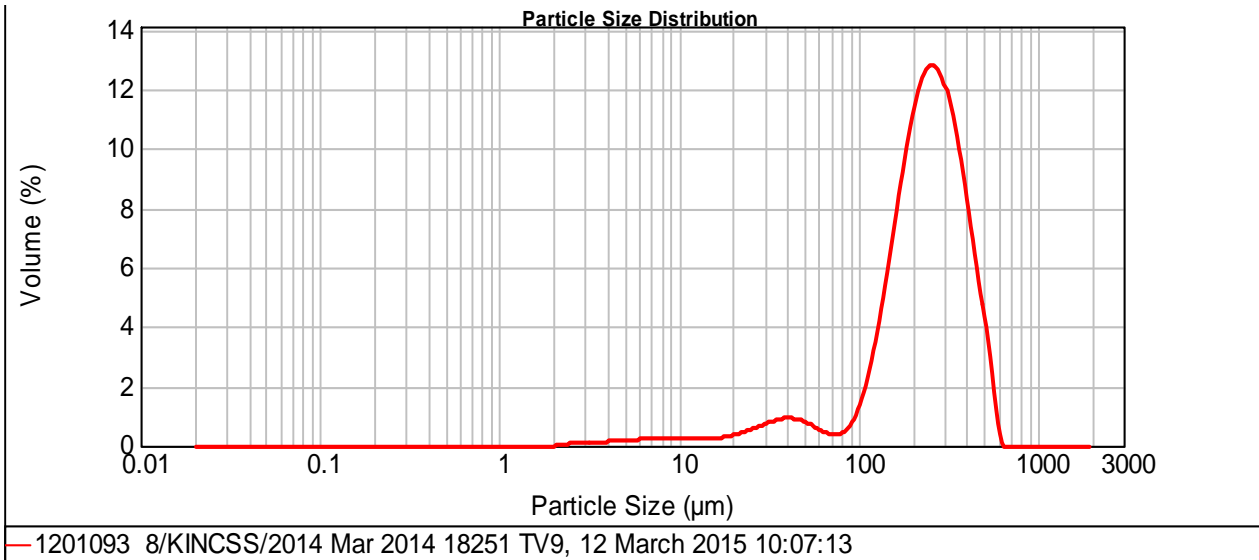
Vol. Weighted Mean D[4,3]:

250.247 um

d(0.1): 103.235 um

d(0.5): 240.944 um

d(0.9): 416.604 um



— 1201093 8/KINCSS/2014 Mar 2014 18251 TV9, 12 March 2015 10:07:13

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.18	50.238	0.55	355.656	6.97
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.18	56.368	0.43	399.052	5.41
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.18	63.246	0.31	447.744	3.87
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.18	70.963	0.27	502.377	2.50
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.18	79.621	0.37	563.677	0.43
0.036	0.00	0.252	0.00	1.783	0.00	12.619	0.17	89.337	0.69	632.456	0.00
0.040	0.00	0.283	0.00	2.000	0.01	14.159	0.18	100.237	1.28	709.627	0.00
0.045	0.00	0.317	0.00	2.244	0.05	15.887	0.20	112.468	2.20	796.214	0.00
0.050	0.00	0.356	0.00	2.518	0.06	17.825	0.24	126.191	3.38	893.367	0.00
0.056	0.00	0.399	0.00	2.825	0.07	20.000	0.29	141.589	4.80	1002.374	0.00
0.063	0.00	0.448	0.00	3.170	0.08	22.440	0.37	158.866	6.28	1124.683	0.00
0.071	0.00	0.502	0.00	3.557	0.10	25.179	0.46	178.250	7.69	1261.915	0.00
0.080	0.00	0.564	0.00	3.991	0.11	28.251	0.56	200.000	8.81	1415.892	0.00
0.089	0.00	0.632	0.00	4.477	0.13	31.698	0.64	224.404	9.50	1588.656	0.00
0.100	0.00	0.710	0.00	5.024	0.14	35.566	0.69	251.785	9.64	1782.502	0.00
0.112	0.00	0.796	0.00	5.637	0.16	39.905	0.70	282.508	9.22	2000.000	0.00
0.126	0.00	0.893	0.00	6.325	0.17	44.774	0.65	316.979	8.27		
0.142	0.00	1.002	0.00	7.096	0.17	50.238	0.65	355.656			

Operator notes: 2014-20632

Result Analysis Report

Laboratory Code
1201094 9/KINCSS/2014 Mar 2014
18252 TV10

Measured:
12 March 2015 10:50:45

Sample Source & type:
Supplier = Atkins Limited

Measured by:
analy

Analysed:
12 March 2015 10:50:46

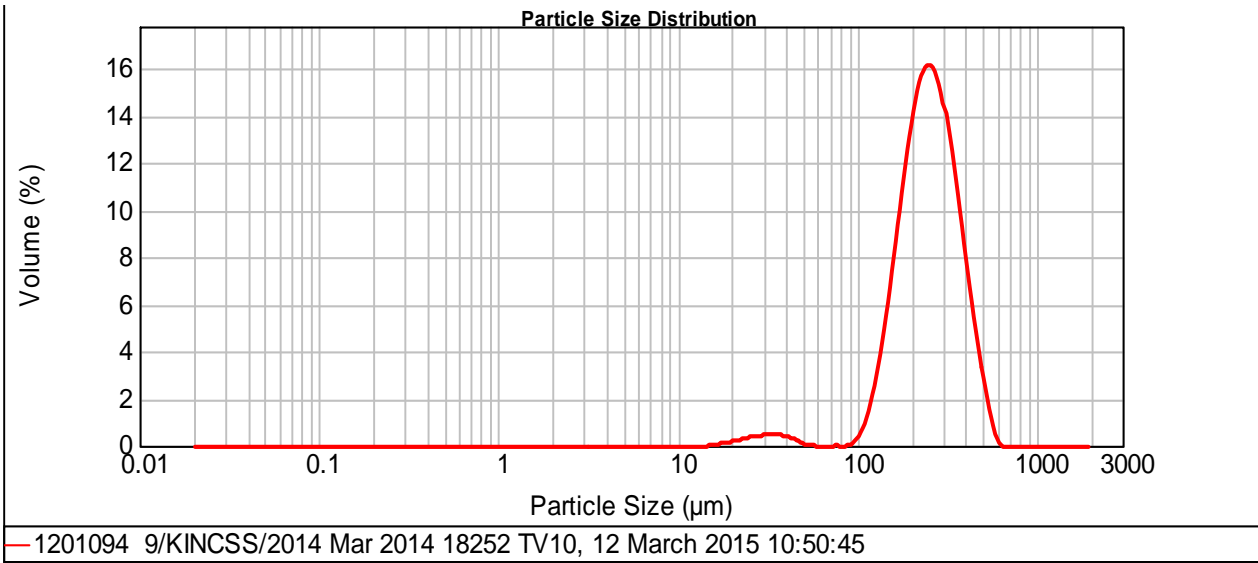
Sample bulk lot ref:
1201094 = Run 1

Result Source:
Measurement

Particle Name: Default	Accessory Name: Hydro 2000G (A)	Analysis model: General purpose	Sensitivity: Normal
Particle RI: 1.520	Absorption: 0.1	Size range: 0.020 to 2000.000 um	Obscuration: 9.09 %
Dispersant Name: Water	Dispersant RI: 1.330	Weighted Residual: 0.911 %	Result Emulation: Off

Concentration: 0.2745 %Vol	Span : 0.967	Uniformity: 0.307	Result units: Volume
Specific Surface Area: 0.0294 m ² /g	Surface Weighted Mean D[3,2]: 203.793 um	Vol. Weighted Mean D[4,3]: 260.912 um	

d(0.1): 152.859 um d(0.5): 248.903 um d(0.9): 393.428 um



Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.00	50.238	0.02	355.656	7.08
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.00	56.368	0.00	399.052	4.84
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.00	63.246	0.00	447.744	2.91
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.00	70.963	0.00	502.377	1.32
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.00	79.621	0.00	563.677	0.17
0.036	0.00	0.252	0.00	1.783	0.00	12.619	0.00	89.337	0.07	632.456	0.00
0.040	0.00	0.283	0.00	2.000	0.00	14.159	0.00	100.237	0.51	709.627	0.00
0.045	0.00	0.317	0.00	2.244	0.00	15.887	0.07	112.468	1.40	796.214	0.00
0.050	0.00	0.356	0.00	2.518	0.00	17.825	0.10	126.191	2.81	893.367	0.00
0.056	0.00	0.399	0.00	2.825	0.00	20.000	0.16	141.589	4.76	1002.374	0.00
0.063	0.00	0.448	0.00	3.170	0.00	22.440	0.23	158.866	7.00	1124.683	0.00
0.071	0.00	0.502	0.00	3.557	0.00	25.179	0.30	178.250	9.25	1261.915	0.00
0.080	0.00	0.564	0.00	3.991	0.00	28.251	0.35	200.000	11.06	1415.892	0.00
0.089	0.00	0.632	0.00	4.477	0.00	31.698	0.36	224.404	12.07	1588.656	0.00
0.100	0.00	0.710	0.00	5.024	0.00	35.566	0.33	251.785	12.08	1782.502	0.00
0.112	0.00	0.796	0.00	5.637	0.00	39.905	0.25	282.508	11.09	2000.000	0.00
0.126	0.00	0.893	0.00	6.325	0.00	44.774	0.12	316.979	9.28		
0.142	0.00	1.002	0.00	7.096	0.00	50.238		355.656			

Operator notes: 2014-20632

Result Analysis Report

Laboratory Code

1201095 10/EAB/2013 Mar 2013
12144 TV10

Measured:

12 March 2015 10:57:21

Sample Source & type:

Supplier = Atkins Limited

Measured by:

analy

Analysed:

12 March 2015 10:57:22

Sample bulk lot ref:

1201095 = Run 1

Result Source:

Measurement

Particle Name:

Default

Accessory Name:

Hydro 2000G (A)

Analysis model:

General purpose

Sensitivity:

Normal

Particle RI:

1.520

Absorption:

0.1

Size range:

0.020 to 2000.000 um

Obscuration:

9.99 %

Dispersant Name:

Water

Dispersant RI:

1.330

Weighted Residual:

0.662 %

Result Emulation:

Off

Concentration:

0.1245 %Vol

Span :

1.387

Uniformity:

0.434

Result units:

Volume

Specific Surface Area:

0.0688 m²/g

Surface Weighted Mean D[3,2]:

87.261 um

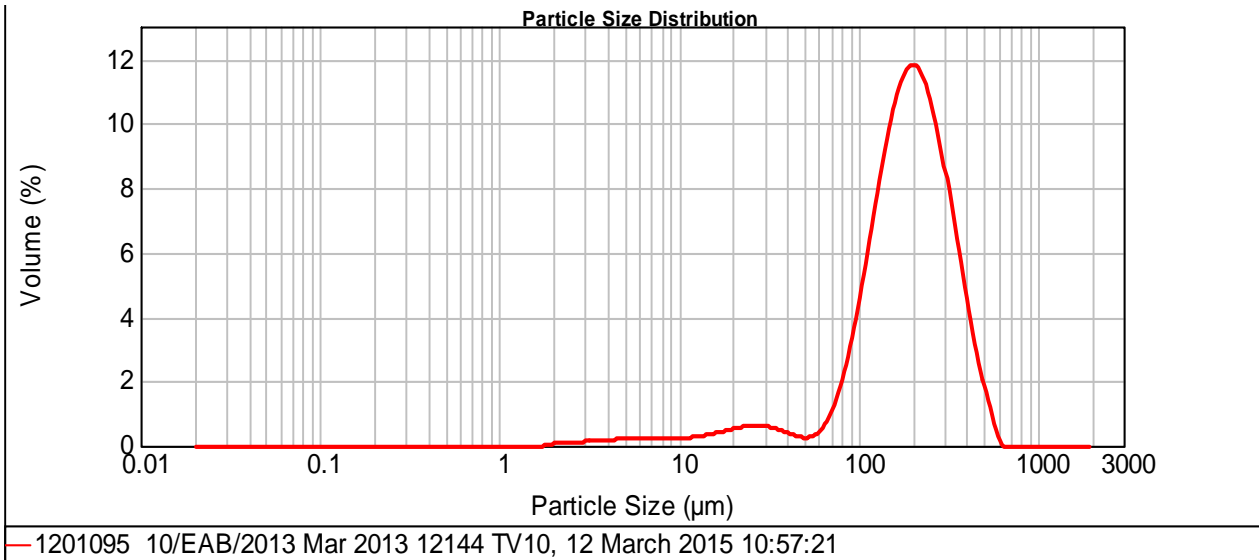
Vol. Weighted Mean D[4,3]:

206.476 um

d(0.1): 87.341 um

d(0.5): 191.769 um

d(0.9): 353.332 um



Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.16	50.238	0.20	355.656	4.04
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.16	56.368	0.31	399.052	2.79
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.17	63.246	0.59	447.744	1.74
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.18	70.963	1.08	502.377	1.00
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.20	79.621	1.80	563.677	0.16
0.036	0.00	0.252	0.00	1.783	0.02	12.619	0.22	89.337	2.76	632.456	0.00
0.040	0.00	0.283	0.00	2.000	0.06	14.159	0.26	100.237	3.89	709.627	0.00
0.045	0.00	0.317	0.00	2.244	0.07	15.887	0.31	112.468	5.14	796.214	0.00
0.050	0.00	0.356	0.00	2.518	0.09	17.825	0.37	126.191	6.38	893.367	0.00
0.056	0.00	0.399	0.00	2.825	0.10	20.000	0.42	141.589	7.50	1002.374	0.00
0.063	0.00	0.448	0.00	3.170	0.12	22.440	0.46	158.866	8.34	1124.683	0.00
0.071	0.00	0.502	0.00	3.557	0.13	25.179	0.47	178.250	8.83	1261.915	0.00
0.080	0.00	0.564	0.00	3.991	0.14	28.251	0.46	200.000	8.88	1415.892	0.00
0.089	0.00	0.632	0.00	4.477	0.15	31.698	0.41	224.404	8.49	1588.656	0.00
0.100	0.00	0.710	0.00	5.024	0.16	35.566	0.34	251.785	7.70	1782.502	0.00
0.112	0.00	0.796	0.00	5.637	0.16	39.905	0.26	282.508	6.62	2000.000	0.00
0.126	0.00	0.893	0.00	6.325	0.16	44.774	0.20	316.979	5.33		
0.142	0.00	1.002	0.00	7.096	0.16	50.238		355.656			

Operator notes: 2014-20632

Result Analysis Report

Laboratory Code

1201096 23/KINCSS/2014 Mar 2014
18266 TV27

Measured:

12 March 2015 11:17:10

Sample Source & type:

Supplier = Atkins Limited

Measured by:

analy

Analysed:

12 March 2015 11:17:11

Sample bulk lot ref:

1201096 = Run 1

Result Source:

Measurement

Particle Name:

Default

Accessory Name:

Hydro 2000G (A)

Analysis model:

General purpose

Sensitivity:

Normal

Particle RI:

1.520

Absorption:

0.1

Size range:

0.020 to 2000.000 um

Obscuration:

8.20 %

Dispersant Name:

Water

Dispersant RI:

1.330

Weighted Residual:

1.164 %

Result Emulation:

Off

Concentration:

0.1859 %Vol

Span :

1.449

Uniformity:

0.481

Result units:

Volume

Specific Surface Area:

0.038 m²/g

Surface Weighted Mean D[3,2]:

157.782 um

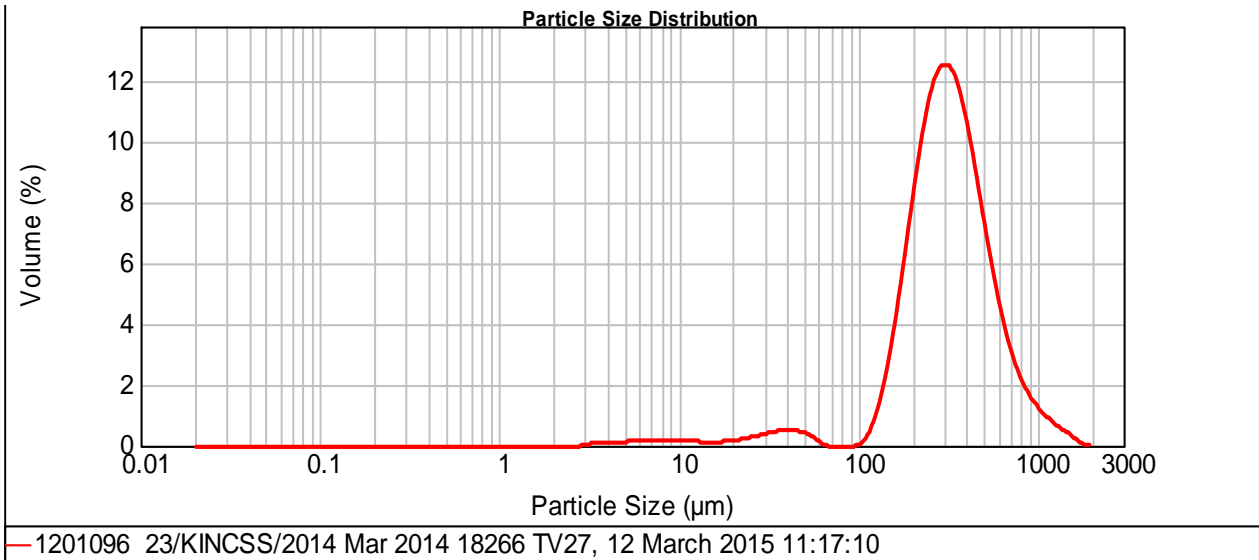
Vol. Weighted Mean D[4,3]:

364.264 um

d(0.1): 167.625 um

d(0.5): 314.040 um

d(0.9): 622.594 um



— 1201096 23/KINCSS/2014 Mar 2014 18266 TV27, 12 March 2015 11:17:10

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.13	50.238	0.27	355.656	8.50
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.13	56.368	0.12	399.052	7.39
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.13	63.246	0.00	447.744	6.10
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.12	70.963	0.00	502.377	4.81
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.11	79.621	0.00	563.677	3.65
0.036	0.00	0.252	0.00	1.783	0.00	12.619	0.10	89.337	0.00	632.456	2.70
0.040	0.00	0.283	0.00	2.000	0.00	14.159	0.10	100.237	0.08	709.627	1.98
0.045	0.00	0.317	0.00	2.244	0.00	15.887	0.10	112.468	0.48	796.214	1.46
0.050	0.00	0.356	0.00	2.518	0.00	17.825	0.11	126.191	1.20	893.367	1.09
0.056	0.00	0.399	0.00	2.825	0.00	20.000	0.14	141.589	2.27	1002.374	0.83
0.063	0.00	0.448	0.00	3.170	0.07	22.440	0.18	158.866	3.64	1124.683	0.62
0.071	0.00	0.502	0.00	3.557	0.07	25.179	0.24	178.250	5.21	1261.915	0.44
0.080	0.00	0.564	0.00	3.991	0.09	28.251	0.30	200.000	6.78	1415.892	0.30
0.089	0.00	0.632	0.00	4.477	0.10	31.698	0.35	224.404	9.44	1588.656	0.12
0.100	0.00	0.710	0.00	5.024	0.11	35.566	0.39	251.785	9.07	1782.502	0.03
0.112	0.00	0.796	0.00	5.637	0.12	39.905	0.39	282.508	9.44	2000.000	
0.126	0.00	0.893	0.00	6.325	0.12	44.774	0.35	316.979	9.23		
0.142	0.00	1.002	0.00	7.096	0.12	50.238		355.656			

Operator notes: 2014-20632

Result Analysis Report

Laboratory Code

1201097 28/KINCSS/2014 Mar 2014
18271 TV33

Measured:

12 March 2015 11:23:47

Sample Source & type:

Supplier = Atkins Limited

Measured by:

analy

Analysed:

12 March 2015 11:23:48

Sample bulk lot ref:

1201097 = Run 1

Result Source:

Measurement

Particle Name:

Default

Accessory Name:

Hydro 2000G (A)

Analysis model:

General purpose

Sensitivity:

Normal

Particle RI:

1.520

Absorption:

0.1

Size range:

0.020 to 2000.000 um

Obscuration:

8.74 %

Dispersant Name:

Water

Dispersant RI:

1.330

Weighted Residual:

0.829 %

Result Emulation:

Off

Concentration:

0.1107 %Vol

Span :

2.315

Uniformity:

0.735

Result units:

Volume

Specific Surface Area:

0.0671 m²/g

Surface Weighted Mean D[3,2]:

89.410 um

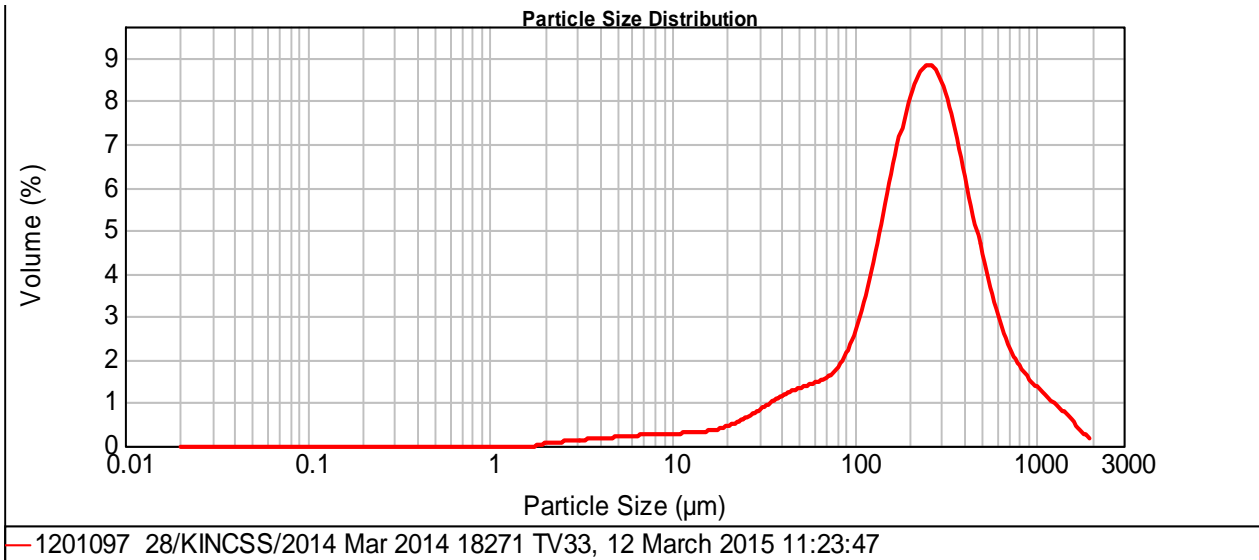
Vol. Weighted Mean D[4,3]:

306.436 um

d(0.1): 57.044 um

d(0.5): 238.496 um

d(0.9): 609.244 um



Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.19	50.238	1.04	355.656	5.22
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.20	56.368	1.09	399.052	4.45
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.21	63.246	1.15	447.744	3.68
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.22	70.963	1.26	502.377	2.97
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.22	79.621	1.46	563.677	2.37
0.036	0.00	0.252	0.00	1.783	0.02	12.619	0.23	89.337	1.76	632.456	1.90
0.040	0.00	0.283	0.00	2.000	0.06	14.159	0.25	100.237	2.20	709.627	1.55
0.045	0.00	0.317	0.00	2.244	0.07	15.887	0.27	112.468	2.79	796.214	1.31
0.050	0.00	0.356	0.00	2.518	0.08	17.825	0.31	126.191	3.49	893.367	1.12
0.056	0.00	0.399	0.00	2.825	0.09	20.000	0.37	141.589	4.28	1002.374	0.96
0.063	0.00	0.448	0.00	3.170	0.11	22.440	0.44	158.866	5.06	1124.683	0.81
0.071	0.00	0.502	0.00	3.557	0.12	25.179	0.53	178.250	5.77	1261.915	0.65
0.080	0.00	0.564	0.00	3.991	0.13	28.251	0.63	200.000	6.31	1415.892	0.50
0.089	0.00	0.632	0.00	4.477	0.15	31.698	0.73	224.404	6.61	1588.656	0.32
0.100	0.00	0.710	0.00	5.024	0.16	35.566	0.83	251.785	6.63	1782.502	0.17
0.112	0.00	0.796	0.00	5.637	0.17	39.905	0.91	282.508	6.38	2000.000	
0.126	0.00	0.893	0.00	6.325	0.18	44.774	0.98	316.979	5.88		
0.142	0.00	1.002	0.00	7.096		50.238		355.656			

Operator notes: 2014-20632

Result Analysis Report

Laboratory Code

1201098 31/KINCSS/2014 Mar 2014
18274 TV38

Measured:

12 March 2015 11:30:42

Sample Source & type:

Supplier = Atkins Limited

Measured by:

analy

Analysed:

12 March 2015 11:30:44

Sample bulk lot ref:

1201098 = Run 1

Result Source:

Measurement

Particle Name:

Default

Accessory Name:

Hydro 2000G (A)

Analysis model:

General purpose

Sensitivity:

Normal

Particle RI:

1.520

Absorption:

0.1

Size range:

0.020 to 2000.000 um

Obscuration:

9.34 %

Dispersant Name:

Water

Dispersant RI:

1.330

Weighted Residual:

0.671 %

Result Emulation:

Off

Concentration:

0.1275 %Vol

Span :

1.771

Uniformity:

0.546

Result units:

Volume

Specific Surface Area:

0.0625 m²/g

Surface Weighted Mean D[3,2]:

96.056 um

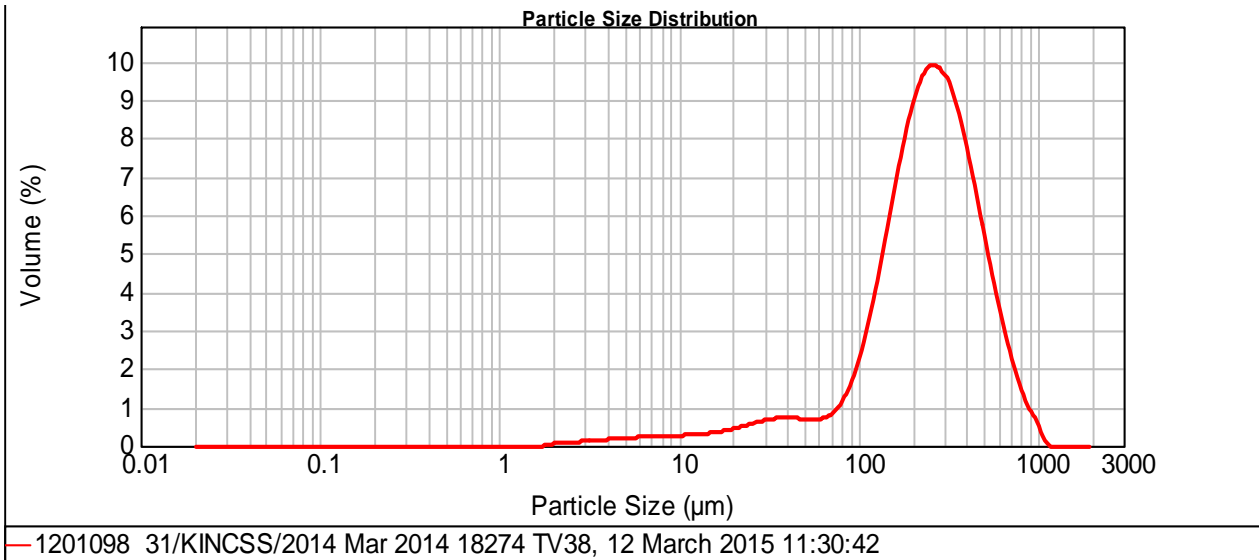
Vol. Weighted Mean D[4,3]:

283.314 um

d(0.1): 84.691 um

d(0.5): 249.132 um

d(0.9): 525.830 um



Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.18	50.238	0.51	355.656	6.21
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.19	56.368	0.52	399.052	5.40
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.20	63.246	0.57	447.744	4.52
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.21	70.963	0.71	502.377	3.63
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.21	79.621	0.98	563.677	2.78
0.036	0.00	0.252	0.00	1.783	0.02	12.619	0.23	89.337	1.39	632.456	2.05
0.040	0.00	0.283	0.00	2.000	0.06	14.159	0.25	100.237	1.97	709.627	1.41
0.045	0.00	0.317	0.00	2.244	0.06	15.887	0.27	112.468	2.72	796.214	0.91
0.050	0.00	0.356	0.00	2.518	0.08	17.825	0.31	126.191	3.58	893.367	0.58
0.056	0.00	0.399	0.00	2.825	0.09	20.000	0.35	141.589	4.52	1002.374	0.19
0.063	0.00	0.448	0.00	3.170	0.10	22.440	0.40	158.866	5.45	1124.683	0.00
0.071	0.00	0.502	0.00	3.557	0.12	25.179	0.45	178.250	6.28	1261.915	0.00
0.080	0.00	0.564	0.00	3.991	0.13	28.251	0.50	200.000	6.94	1415.892	0.00
0.089	0.00	0.632	0.00	4.477	0.14	31.698	0.53	224.404	7.35	1588.656	0.00
0.100	0.00	0.710	0.00	5.024	0.15	35.566	0.55	251.785	7.47	1782.502	0.00
0.112	0.00	0.796	0.00	5.637	0.17	39.905	0.55	282.508	7.30	2000.000	0.00
0.126	0.00	0.893	0.00	6.325	0.18	44.774	0.53	316.979	6.86		
0.142	0.00	1.002	0.00	7.096	0.18	50.238	0.53	355.656	6.86		

Operator notes: 2014-20632

Result Analysis Report

Laboratory Code

1201099 34/KINCSS/2014 Mar 2014
18277 TV41

Measured:

12 March 2015 11:38:36

Sample Source & type:

Supplier = Atkins Limited

Measured by:

analy

Analysed:

12 March 2015 11:38:37

Sample bulk lot ref:

1201099 = Run 1

Result Source:

Measurement

Particle Name:

Default

Accessory Name:

Hydro 2000G (A)

Analysis model:

General purpose

Sensitivity:

Normal

Particle RI:

1.520

Absorption:

0.1

Size range:

0.020 to 2000.000 μm

Obscuration:

9.27 %

Dispersant Name:

Water

Dispersant RI:

1.330

Weighted Residual:

1.023 %

Result Emulation:

Off

Concentration:

0.3101 %Vol

Span :

1.227

Uniformity:

0.407

Result units:

Volume

Specific Surface Area:

0.0266 m^2/g

Surface Weighted Mean D[3,2]:

225.241 μm

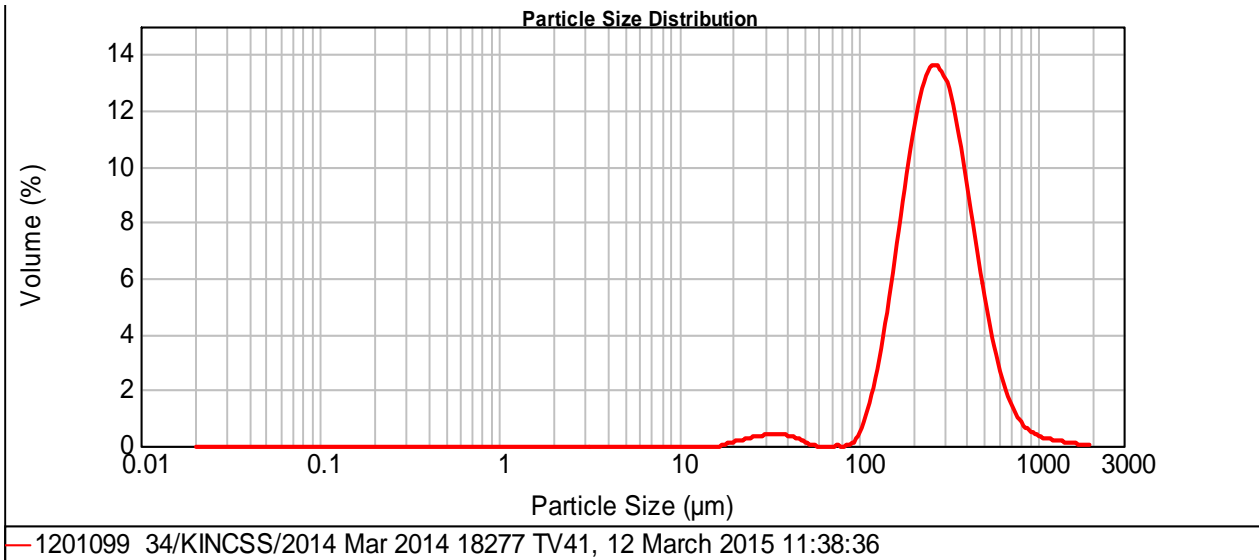
Vol. Weighted Mean D[4,3]:

306.872 μm

d(0.1): 156.381 μm

d(0.5): 273.174 μm

d(0.9): 491.478 μm



Size (μm)	Volume In %	Size (μm)	Volume In %	Size (μm)	Volume In %	Size (μm)	Volume In %	Size (μm)	Volume In %	Size (μm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.00	50.238	0.03	355.656	7.78
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.00	56.368	0.00	399.052	6.23
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.00	63.246	0.00	447.744	4.68
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.00	70.963	0.00	502.377	3.30
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.00	79.621	0.00	563.677	2.19
0.036	0.00	0.252	0.00	1.783	0.00	12.619	0.00	89.337	0.10	632.456	1.38
0.040	0.00	0.283	0.00	2.000	0.00	14.159	0.00	100.237	0.58	709.627	0.83
0.045	0.00	0.317	0.00	2.244	0.00	15.887	0.00	112.468	1.39	796.214	0.51
0.050	0.00	0.356	0.00	2.518	0.00	17.825	0.07	126.191	2.56	893.367	0.33
0.056	0.00	0.399	0.00	2.825	0.00	20.000	0.12	141.589	4.08	1002.374	0.23
0.063	0.00	0.448	0.00	3.170	0.00	22.440	0.19	158.866	5.76	1124.683	0.17
0.071	0.00	0.502	0.00	3.557	0.00	25.179	0.24	178.250	7.47	1261.915	0.13
0.080	0.00	0.564	0.00	3.991	0.00	28.251	0.29	200.000	8.92	1415.892	0.08
0.089	0.00	0.632	0.00	4.477	0.00	31.698	0.31	224.404	9.91	1588.656	0.06
0.100	0.00	0.710	0.00	5.024	0.00	35.566	0.30	251.785	10.28	1782.502	0.03
0.112	0.00	0.796	0.00	5.637	0.00	39.905	0.25	282.508	10.00	2000.000	
0.126	0.00	0.893	0.00	6.325	0.00	44.774	0.16	316.979	9.09		
0.142	0.00	1.002	0.00	7.096	0.00	50.238		355.656			

Operator notes: 2014-20632

Result Analysis Report

Laboratory Code

1201100 38/KINCSS/2014 Mar 2014
18281 TV45

Measured:

12 March 2015 11:44:38

Sample Source & type:

Supplier = Atkins Limited

Measured by:

analy

Analysed:

12 March 2015 11:44:39

Sample bulk lot ref:

1201100 = Run 1

Result Source:

Measurement

Particle Name:

Default

Accessory Name:

Hydro 2000G (A)

Analysis model:

General purpose

Sensitivity:

Normal

Particle RI:

1.520

Absorption:

0.1

Size range:

0.020 to 2000.000 um

Obscuration:

9.45 %

Dispersant Name:

Water

Dispersant RI:

1.330

Weighted Residual:

1.013 %

Result Emulation:

Off

Concentration:

0.1767 %Vol

Span :

1.184

Uniformity:

0.427

Result units:

Volume

Specific Surface Area:

0.0462 m²/g

Surface Weighted Mean D[3,2]:

129.733 um

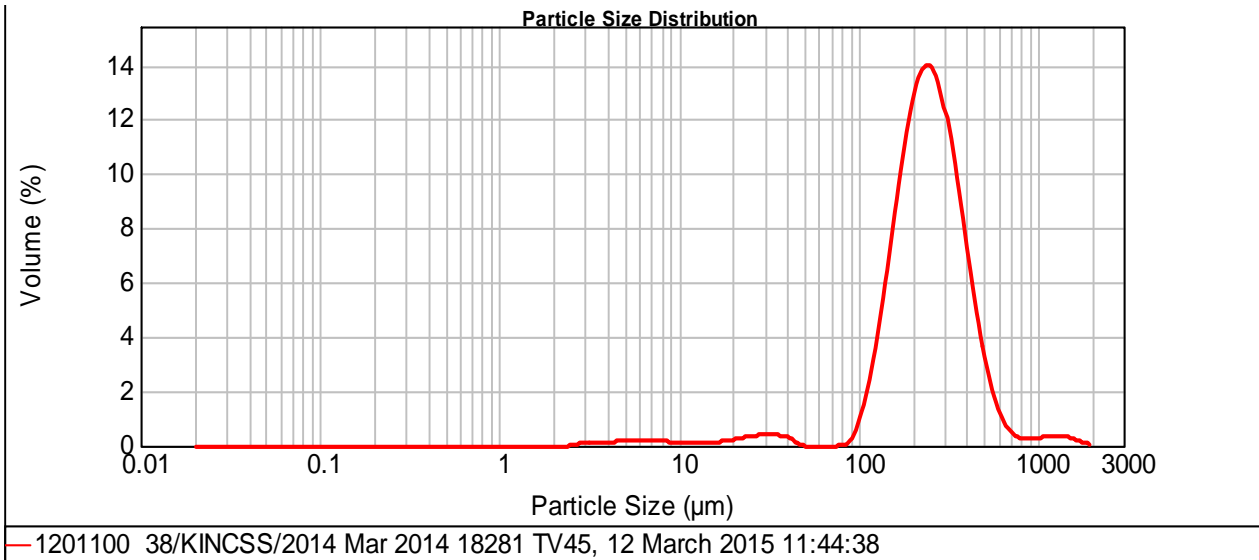
Vol. Weighted Mean D[4,3]:

275.257 um

d(0.1): 138.222 um

d(0.5): 244.082 um

d(0.9): 427.253 um



Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.13	50.238	0.00	355.656	6.35
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.12	56.368	0.00	399.052	4.60
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.11	63.246	0.00	447.744	3.06
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.09	70.963	0.00	502.377	1.85
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.08	79.621	0.02	563.677	1.01
0.036	0.00	0.252	0.00	1.783	0.00	12.619	0.08	89.337	0.33	632.456	0.51
0.040	0.00	0.283	0.00	2.000	0.00	14.159	0.09	100.237	1.05	709.627	0.27
0.045	0.00	0.317	0.00	2.244	0.00	15.887	0.11	112.468	2.16	796.214	0.19
0.050	0.00	0.356	0.00	2.518	0.05	17.825	0.14	126.191	3.63	893.367	0.20
0.056	0.00	0.399	0.00	2.825	0.07	20.000	0.19	141.589	5.39	1002.374	0.24
0.063	0.00	0.448	0.00	3.170	0.08	22.440	0.24	158.866	7.19	1124.683	0.26
0.071	0.00	0.502	0.00	3.557	0.10	25.179	0.29	178.250	8.83	1261.915	0.26
0.080	0.00	0.564	0.00	3.991	0.11	28.251	0.32	200.000	10.01	1415.892	0.23
0.089	0.00	0.632	0.00	4.477	0.12	31.698	0.31	224.404	10.55	1588.656	0.15
0.100	0.00	0.710	0.00	5.024	0.13	35.566	0.27	251.785	10.35	1782.502	0.09
0.112	0.00	0.796	0.00	5.637	0.13	39.905	0.19	282.508	9.47	2000.000	
0.126	0.00	0.893	0.00	6.325	0.13	44.774	0.01	316.979	8.04		
0.142	0.00	1.002	0.00	7.096	0.13	50.238		355.656			

Operator notes: 2014-20632

Result Analysis Report

Laboratory Code

1201126 7/KINCSS/2014 Mar 2014
18250 TV8

Measured:

12 March 2015 11:51:06

Sample Source & type:

Supplier = Atkins Limited

Measured by:

analy

Analysed:

12 March 2015 11:51:07

Sample bulk lot ref:

1201126 = Run 1

Result Source:

Measurement

Particle Name:

Default

Accessory Name:

Hydro 2000G (A)

Analysis model:

General purpose

Sensitivity:

Normal

Particle RI:

1.520

Absorption:

0.1

Size range:

0.020 to 2000.000 um

Obscuration:

8.53 %

Dispersant Name:

Water

Dispersant RI:

1.330

Weighted Residual:

1.126 %

Result Emulation:

Off

Concentration:

0.3146 %Vol

Span :

1.265

Uniformity:

0.427

Result units:

Volume

Specific Surface Area:

0.0241 m²/g

Surface Weighted Mean D[3,2]:

249.132 um

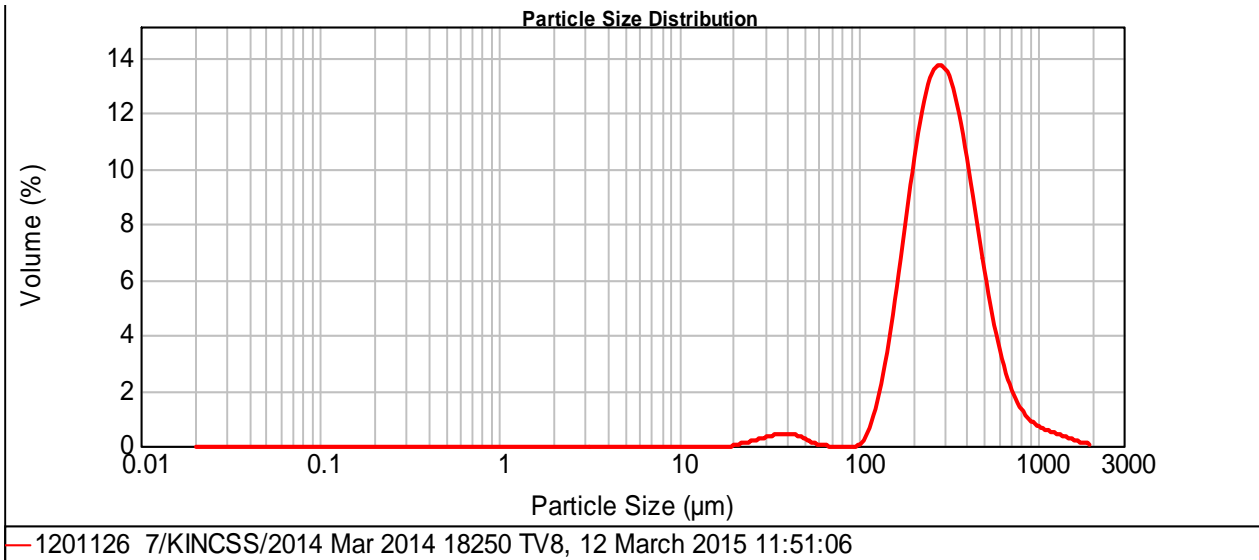
Vol. Weighted Mean D[4,3]:

338.978 um

d(0.1): 171.233 um

d(0.5): 294.615 um

d(0.9): 544.010 um



Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.142	0.00	1.002	0.00	7.096	0.00	50.238	0.13	355.656	8.50
0.022	0.00	0.159	0.00	1.125	0.00	7.962	0.00	56.368	0.03	399.052	7.00
0.025	0.00	0.178	0.00	1.262	0.00	8.934	0.00	63.246	0.00	447.744	5.43
0.028	0.00	0.200	0.00	1.416	0.00	10.024	0.00	70.963	0.00	502.377	3.98
0.032	0.00	0.224	0.00	1.589	0.00	11.247	0.00	79.621	0.00	563.677	2.77
0.036	0.00	0.252	0.00	1.783	0.00	12.619	0.00	89.337	0.00	632.456	1.87
0.040	0.00	0.283	0.00	2.000	0.00	14.159	0.00	100.237	0.00	709.627	1.24
0.045	0.00	0.317	0.00	2.244	0.00	15.887	0.00	112.468	0.11	796.214	0.86
0.050	0.00	0.356	0.00	2.518	0.00	17.825	0.00	126.191	0.67	893.367	0.62
0.056	0.00	0.399	0.00	2.825	0.00	20.000	0.00	141.589	1.61	1002.374	0.48
0.063	0.00	0.448	0.00	3.170	0.00	22.440	0.02	158.866	4.65	1124.683	0.38
0.071	0.00	0.502	0.00	3.557	0.00	25.179	0.08	178.250	6.47	1261.915	0.29
0.080	0.00	0.564	0.00	3.991	0.00	28.251	0.16	200.000	8.17	1415.892	0.22
0.089	0.00	0.632	0.00	4.477	0.00	31.698	0.23	224.404	9.50	1588.656	0.12
0.100	0.00	0.710	0.00	5.024	0.00	35.566	0.29	251.785	10.25	1782.502	0.07
0.112	0.00	0.796	0.00	5.637	0.00	39.905	0.31	282.508	10.30	2000.000	
0.126	0.00	0.893	0.00	6.325	0.00	44.774	0.25	316.979	9.66		
0.142	0.00	1.002	0.00	7.096	0.00	50.238	0.00	355.656			

Operator notes: 2014-20632