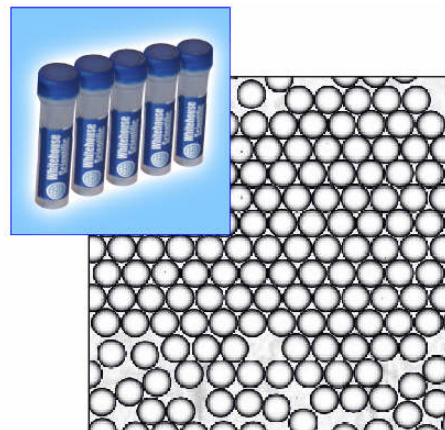


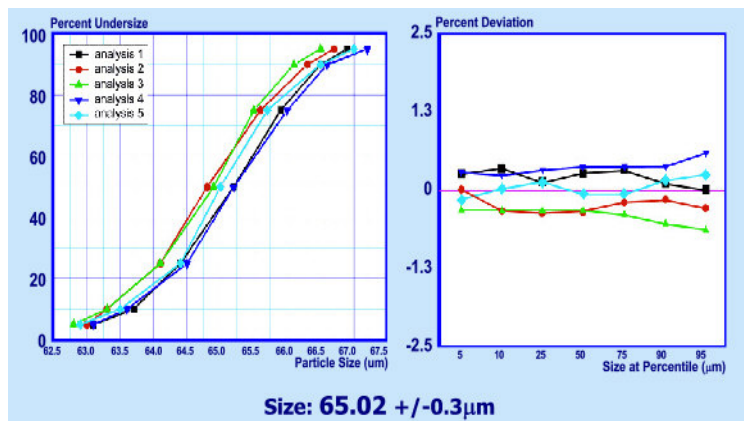
NIST TRACEABLE MONODISPERSE STANDARDS

- Ultra-narrow size distribution glass microspheres
- Only a few microns separating many grades
- Traceable to International standards - NIST & NPL
- The widest range of beads from a single source
- Over 50 sizes from 9 to 600µm
- Shape sorted for optimal sphericity
- Dry powders for excellent long term stability



Certification method

An Optical Microscopy and Image Analysis method was used to certify our Monodisperse Standards against a NIST calibrated stage micrometer. The method was based on guidelines developed at the French National Physical Laboratory (CNRS) for the certification of European particle size standards in the BCR Certified Reference Material project (see Whitehouse Scientific Web Library).



In the certification process, a half an hour period was allowed for equilibration of both optics and electronics before calibration of the system using the NIST reference. 5 separate analyses on different days were performed by different technicians to determine the measurement uncertainty at the peak. In percentage terms, this rarely exceeds +/-2.5%. See the example in the graph opposite.

Applications

Used in precision calibration of Laser particle size analysers, measuring maximum apertures in filters and sieves, in-situ image analysis calibrants, cosmic dust simulation experiments, high precision spacers in optical, micro-engineering and electronic applications, fluid and flow dynamic studies, cell biology and immunology studies and general performance and compliance testing.

Price List

*March 2009 - currency conversion are provided as a guide only and are subject to fluctuation

Measured Size (µm)	90% of beads between	Wt. per bottle (g)	Catalogue Number	Price for 5 bottles	Measured Size (µm)	90% of beads between	Wt. per bottle (g)	Catalogue Number	Price for 5 bottles
				£ €* \$*					£ €* \$*
9.18 +/-0.19	7.78 - 10.44	0.1	MS0009	105 126 168	98.1 +/-2.8	94.0 - 103.0	0.2	MS0098	75 90 120
11.58 +/-0.19	9.14 - 15.00	0.1	MS0012	95 114 152	103.3 +/-2.8	98.0 - 109.0	0.3	MS0103	80 96 128
22.81 +/-0.78	21.5 - 24.2	0.1	MS0023	80 96 128	114.4 +/-2.6	110.1 - 118.4	0.3	MS0114	80 96 128
25.60 +/-0.70	24.1 - 27.1	0.1	MS0026	80 96 128	127.5 +/-2.3	124 - 132	0.3	MS0128	73 88 117
28.41 +/-0.94	26.8 - 30.3	0.15	MS0028	80 96 128	155.8 +/-1.5	151 - 163	0.3	MS0156	68 82 109
31.33 +/-0.82	29.9 - 32.7	0.15	MS0031	80 96 128	177.0 +/-3.7	171 - 184	0.3	MS0177	65 78 104
35.65 +/-0.45	34.2 - 37.0	0.2	MS0036	80 96 128	180.0 +/-2.2	174 - 187	0.3	MS0180	65 78 104
37.36 +/-0.28	36.2 - 38.8	0.2	MS0037	80 96 128	192.6 +/-5.6	186 - 199	0.4	MS0192	75 90 120
38.38 +/-0.54	36.6 - 39.6	0.2	MS0038	80 96 128	197.3 +/-1.2	190 - 207	0.4	MS0197	75 90 120
40.15 +/-0.48	38.9 - 41.4	0.2	MS0040	80 96 128	200.9 +/-1.9	196 - 206	0.4	MS0201	75 90 120
42.68 +/-0.55	40.7 - 44.6	0.2	MS0042	80 96 128	210.0 +/-1.1	204 - 220	0.4	MS0210	75 90 120
49.21 +/-0.72	47.0 - 51.4	0.2	MS0049	78 94 125	224.8 +/-3.8	217 - 236	0.4	MS0225	73 88 117
52.68 +/-0.90	51.2 - 53.7	0.2	MS0053	78 94 125	236.2 +/-3.0	224 - 247	0.5	MS0236	75 90 120
56.28 +/-0.92	54.8 - 59.0	0.2	MS0056	75 90 120	268.5 +/-3.4	261 - 278	0.6	MS0269	72 86 115
59.63 +/-1.01	57.1 - 62.2	0.2	MS0060	75 90 120	292.5 +/-4.5	285 - 301	0.8	MS0292	73 88 117
63.84 +/-0.78	61.3 - 66.4	0.2	MS0064	75 90 120	297.9 +/-3.9	290 - 309	0.8	MS0298	72 86 115
65.02 +/-0.35	63.0 - 66.9	0.2	MS0065	75 90 120	304.6 +/-7.6	294 - 313	0.8	MS0305	72 86 115
66.29 +/-0.62	64.6 - 68.4	0.2	MS0066	75 90 120	315.3 +/-4.9	296 - 328	1.0	MS0315	75 90 120
70.89 +/-0.75	68.4 - 73.7	0.2	MS0071	75 90 120	361.6 +/-9.9	344 - 378	1.0	MS0362	72 86 115
73.82 +/-0.90	72.0 - 76.2	0.2	MS0074	75 90 120	405.9 +/-8.7	396 - 419	1.5	MS0406	75 90 120
76.39 +/-0.91	73.4 - 79.7	0.2	MS0076	75 90 120	451 +/-6	434 - 467	2.0	MS0451	75 90 120
83.43 +/-0.87	79.7 - 87.5	0.2	MS0083	75 90 120	555 +/-3	539 - 578	2.5	MS0555	75 90 120
89.80 +/-1.02	87.9 - 91.5	0.2	MS0090	75 90 120	589 +/-6	572 - 615	3.0	MS0589	75 90 120
91.21 +/-0.88	89.3 - 94.2	0.2	MS0091	75 90 120					

MONODISPERSE MIX

Don't need 5 bottles of the same standard? Simply choose a selection of 5 different Monodisperse standards to make up your own personalised set! Double up on a bottle or 2 or choose 5 completely different sizes the choice is yours! Whatever sizes you choose, you pay the same great price

£100 €120 \$160