

Selection of Microspheres by Density		
Product Code	Type of Microspheres	Density (g/cc)
Hollow Glass Microspheres <1g/cc		
HGMS-0.14	Hollow Glass	0.05-0.55
M-60	Silver Coated Hollow Glass	0.16
Photopheres	Photocatalytic Spheres	0.22
M-45	Silver Coated Hollow Glass	0.32
HGMS-0.46	Hollow Glass	0.30-0.80
M-40	Silver Coated Hollow Glass	0.49
M-30	Silver Coated Hollow Glass	0.62
HGMS-ZnO	Zinc Oxide Hollow Glass	0.66
Isopheres	TiO2 Coated Hollow Glass	0.69
M-18-Ni	Nickel-Coated Hollow Glass	0.69
M-18-Ag	Silver-Coated Hollow Glass	0.72
Polymer Microspheres <1g/cc		
PPS	Polypropylene Spheres	0.92
CPMS	Clear Polyethylene Spheres	0.96
GPMS	Green Polyethylene	0.98
REDPMS	Red Polyethylene	0.98
UVYGPMS	Fluorescent Yellow-Green PE	0.98
UVBGPMS	Fluorescent Blue-Green PE	0.98
RHBPMs	Rhodamine B Polyethylene	0.98
Neutrally-Buoyant Polymer Microspheres 1g/cc		
UVPMS-BY	Fluorescent Yellow PE	1.00
UVPMS-BG	Fluorescent Green PE	1.00
UVPMS-BO	Fluorescent Orange PE	1.00
BLPMS	Blue Polyethylene	1.00
ORGPMS	Orange Polyethylene	1.00
YPMS	Yellow Polyethylene	1.00
GRYPMS	Grey Polyethylene	1.00
PNKPMS	Pink Polyethylene	1.00
VIOPMS	Violet Polyethylene	1.00
Polymer Microspheres >1g/cc		
UVPMS-BG	Fluorescent Green PE	1.015-1.04
UVPMS-BO	Fluorescent Orange PE	1.015-1.03
PSS	Polystyrene Spheres	1.05
UVPMS-BR	Fluorescent Red PE	1.05-1.20
BLPMS	Fluorescent Blue PE	1.08
REDPMS	Red Polyethylene	1.04-1.12
UVPMS-BB	Fluorescent Blue PE	1.13
PHYPMs	Phosphorescent Green PE	1.14
Polymer Microspheres >1.2g/cc		
BKPMS	Paramagnetic Black PE	1.2
PMPMS	PMMA Microspheres	1.2
FM	Fluorescent Polymer	1.3
CAS	Cellulose Acetate Spheres	1.3
WPMS	White Polyethylene	1.35
BSPMS	Barium Sulfate White PE	1.5
Solid Glass Microspheres >1.6g/cc		
SiO2MS-1.67	Polymersperse Silica	1.67
SiO2MS-1.8	Monodisperse Silica	1.8
BSGMS	Borosilicate Glass	2.2
SLGMS	Soda Lime Glass	2.52
EGMS	E-Glass	2.54
SLGMS-AG	Silver Coated SodaLime Glass	2.6
BTGMS	Barium Titanate Glass	4.1-4.5
P2453BTA	Aluminum Half Shell Glass	4.5
Custom Microspheres		
Custom	Custom Density PE	0.96 - 1.5
Custom	Half-Coated Janus Particles	Custom

Density Marker Beads (20% in aqueous solution)		
Product Code	Type of Microspheres	Density (g/cc)
DMB-FGRN	Fluorescent Green	1.02
DMB-FORG	Fluorescent Orange	1.04
DMB-FVIO	Fluorescent Violet	1.06
DMB-RBLU	Dark Blue	1.08
DMB-FRED	Fluorescent Red	1.09
DMB-FBLU	Fluorescent Blue	1.13

Particle Sizing Options		
(0.001mm)	Inches	Mesh #
15um (0.015mm)	0.00059"	---
16um (0.016mm)	0.00063"	---
18um (0.018mm)	0.00071"	---
20um (0.020mm)	0.00079"	635
21um (0.021mm)	0.00083"	---
22um (0.022mm)	0.00087"	---
23um (0.023mm)	0.00091"	---
24um (0.024mm)	0.00094"	---
25um (0.025mm)	0.00098"	500
26um (0.026mm)	0.00102"	---
27um (0.027mm)	0.00106"	---
28um (0.028mm)	0.00110"	---
30um (0.030mm)	0.00118"	---
32um (0.032mm)	0.00126"	450
34um (0.034mm)	0.00134"	---
36um (0.036mm)	0.00142"	---
38um (0.038mm)	0.00150"	400
40um (0.040mm)	0.00157"	---
42um (0.042mm)	0.00165"	---
45um (0.045mm)	0.00177"	325
47um (0.047mm)	0.00185"	---
50um (0.050mm)	0.00197"	---
53um (0.053mm)	0.0021"	270
56um (0.056mm)	0.0022"	---
63um (0.063mm)	0.0025"	230
71um (0.071mm)	0.0028"	---
75um (0.075mm)	0.0030"	200
80um (0.080mm)	0.0032"	---
90um (0.090mm)	0.0035"	170
100um (0.100mm)	0.0039"	---
106um (0.106mm)	0.0042"	140
112um (0.112mm)	0.0044"	---
125um (0.125mm)	0.0049"	120
140um (0.140mm)	0.0055"	---
150um (0.150mm)	0.0059"	100
160um (0.160mm)	0.0063"	---
172um (0.172mm)	0.0068"	---
175um (0.175mm)	0.0069"	---
180um (0.180mm)	0.0071"	80
212um (0.212mm)	0.0083"	70
216um (0.216mm)	0.0085"	---
219um (0.219mm)	0.0086"	---
250um (0.250mm)	0.0098"	60
300um (0.300mm)	0.0118"	50
355um (0.355mm)	0.0140"	45
425um (0.425mm)	0.0167"	40
500um (0.50mm)	0.0197"	35
600um (0.60mm)	0.0236"	30
710um (0.71mm)	0.0280"	25
850um (0.85mm)	0.0335"	20
1000um (1.00mm)	0.0394"	18
1180um (1.18mm)	0.0465"	16
1400um (1.40mm)	0.0551"	14
1700um (1.70mm)	0.0669"	12
2000um (2.00mm)	0.0787"	10
2360um (2.36mm)	0.0929"	8
2800um (2.80mm)	0.1102"	7
3350um (3.35mm)	0.1319"	6
4000um (4.00mm)	0.1575"	5
4750um (4.75mm)	0.1870"	4
5600um (5.60mm)	0.2205"	3 1/2

Calculation of Spheres per Gram			
Microsphere Diameter	Polyethylene ~1.0g/cc	Soda Lime ~2.5g/cc	
(um)	(um)	# spheres/g	# spheres/g
10	20	3.90E+08	1.55E+08
20	27	1.47E+08	5.86E+07
27	32	7.44E+07	2.96E+07
32	45	3.35E+07	1.33E+07
45	53	1.62E+07	6.47E+06
53	63	9.79E+06	3.90E+06
63	75	5.81E+06	2.32E+06
75	90	3.40E+06	1.36E+06
90	106	2.03E+06	8.08E+05
106	125	1.24E+06	4.94E+05
125	150	7.35E+05	2.93E+05
150	180	4.25E+05	1.69E+05
180	212	2.54E+05	1.01E+05
212	250	1.58E+05	6.17E+04
250	300	9.18E+04	3.66E+04
300	355	5.44E+04	2.17E+04
355	425	3.22E+04	1.28E+04
425	500	1.93E+04	7.69E+03
500	600	1.15E+04	4.57E+03
600	710	6.80E+03	2.71E+03
710	850	4.03E+03	1.60E+03
850	1000	2.41E+03	9.61E+02
1000	1180	1.48E+03	5.28E+02
1180	1400	8.90E+02	3.54E+02
1400	1700	5.13E+02	2.04E+02
1700	2000	3.02E+02	1.20E+02
2000	2360	1.84E+02	7.30E+01
2360	2800	1.11E+02	4.40E+01
2800	3350	6.60E+01	2.60E+01

Custom Particle Size Classification
to any size needed

Custom Density Particles

Paramagnetic Microspheres

Density Marker Beads

Custom Color Particles

Fluorescent Response

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