



**Duke Scientific Corporation**

Your Trusted Partner in Particle Science

# General Purpose Latex Particles

## 5000 Series Latex Microsphere Suspensions

## 7000 Series Copolymer Microsphere Suspensions

Higher Concentration Polymer Microspheres  
in 15, 100 and 1,000 mL Bottles

### Applications:

- Research and development
- Filter testing
- Fluid mechanics testing

### Advantages:

- High concentration
- Large quantities available
- Uniform particle size

### Benefits:

- Suspended in DI H<sub>2</sub>O
- Convenient packaging



**Product Description.** This group of products is designed to meet the need for particulate materials with a variety of particle sizes and properties. They are useful for applications such as filter evaluation and testing, fluid mechanics research, dispersion studies and many other research and development projects. They are not intended for use as instrument calibrants or diagnostic reagents because they lack the exacting specifications needed for those applications.

### Product Attributes

Particle Composition:	Polystyrene or Polystyrene crosslinked with DVB
Particle Sizes:	Mean Diameters from 0.03 to 220 microns
Concentration:	10% Solids
Particle Density:	1.05 g/cm <sup>3</sup>
Index of Refraction:	1.59 @ 589 nm (25°C)
Bottle Size:	15 mL, 100 mL and 1000 mL (all at 10% solids)
Expiration Date:	≥ 24 months
Additives:	Contains a trace amount of surfactant
Package Includes:	Material Safety Data Sheet General Product Handling Insert Sheet
Storage & Handling:	Store at room temperature or refrigerated. Keep bottle tightly sealed to avoid contamination.

Particle size determined by:  
Photon Correlation Spectroscopy  
Optical Microscopy  
Laser Diffraction

## 5000 Series

### Applications

This line of polystyrene latex particles can be used for a variety of procedures requiring uniform particle sizes in the colloidal size range. Particles of this size are of special interest for research in light scattering, microporous filter checking or aerosol particle generation. The polystyrene microspheres have a density of 1.05 g/cm<sup>3</sup> and a refractive index of 1.59 @ 589 nm. Particle diameters are measured by optical microscopy, photon correlation spectroscopy, or light scattering. They are packaged as aqueous suspensions at 10% solids by weight.

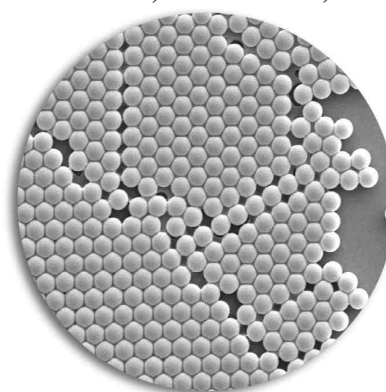
Our 5000 series particles range up to 3.1 microns in size. If you require larger particles, please refer to our 7000 series particles found on the next page.



## Latex Microsphere Suspensions

5000 Series

Higher Concentration Polymer Microspheres  
in 15, 100 and 1,000 mL Bottles



### Product Attributes

Particle Composition:	Polystyrene
Particle Sizes:	Mean Diameters from 0.03 to 3.1 microns
Concentration:	10% Solids
Particle Density:	1.05 g/cm <sup>3</sup>
Index of Refraction:	1.59 @ 589 nm (25°C)
Bottle Size:	15 mL, 100 mL* and 1000 mL* (all at 10% solids)
Expiration Date:	≥ 24 months
Additives:	Contains a trace amount of surfactant
Package Includes:	Material Safety Data Sheet (MSDS) General Product Handling Insert Sheet
Storage & Handling:	Store at room temperature or refrigerated. Keep bottle tightly sealed to avoid contamination.

\* "B" bottles (100 mL) and "C" bottles (1000 mL) are packaged to order (please allow 3-7 working days).

### Ordering Information

Catalog Number		Mean Diameter (µm)	Size Uniformity (C.V.)
15mL	100mL*		
5003A	5003B	0.03	≤18%
5006A	5006B	0.06	≤18%
5008A	5008B	0.08	≤18%
5009A	5009B	0.09	≤15%
5010A	5010B	0.10	≤15%
5011A	5011B	0.11	≤12%
5012A	5012B	0.12	≤12%
5014A	5014B	0.14	≤6%
5016A	5016B	0.16	≤6%
5017A	5017B	0.17	≤5%
5020A	5020B	0.20	≤5%
5022A	5022B	0.22	≤3%
5024A	5024B	0.24	≤3%
5026A	5026B	0.26	≤3%
5030A	5030B	0.30	≤3%
5031A	5031B	0.31	≤3%
5033A	5033B	0.34	≤3%
5036A	5036B	0.36	≤3%
5043A	5043B	0.43	≤3%
5045A	5045B	0.45	≤3%
5049A	5049B	0.49	≤3%
5050A	5050B	0.50	≤3%
5051A	5051B	0.51	≤3%
5052A	5052B	0.52	≤3%
5060A	5060B	0.60	≤3%
5065A	5065B	0.65	≤3%
5067A	5067B	0.67	≤3%
5074A	5074B	0.74	≤3%
5081A	5081B	0.82	≤3%
5088A	5088B	0.87	≤3%
5090A	5090B	0.89	≤3%
5093A	5093B	0.93	≤3%
5100A	5100B	1.0	≤3%
5130A	5130B	1.3	≤5%
5153A	5153B	1.5	≤4%
5200A	5200B	2.0	≤4%
5300A	5300B	3.0	≤5%
5312A	5312B	3.1	≤5%

**7000 Series**

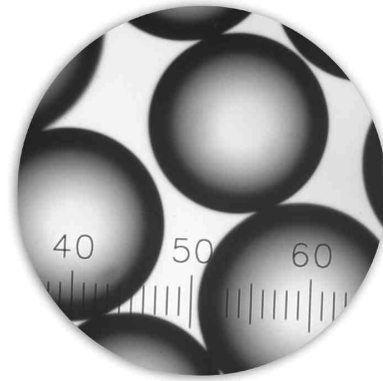
**Copolymer Microsphere Suspensions**

**7000 Series**

*Higher Concentration Polymer Microspheres  
in 15, 100 and 1,000 mL Bottles*

**Applications**

Suspensions of large copolymer microspheres are useful as model systems for fluid mechanics experiments, and as challenge particles for large pore filtration systems. They are also useful as experimental particles for acoustical and optical analytical systems. They are composed of polystyrene polymer, cross-linked with 4 to 8% divinylbenzene (DVB). The particles are chemically inert; they can be washed with alcohol, vacuum or air dried, and autoclaved. The polymer density is 1.05 g/cm<sup>3</sup> and the index of refraction is 1.59 @ 589 nm. They are packaged as aqueous suspensions at 10% solids by weight.



**Product Attributes**

Particle Composition:	Polystyrene crosslinked with DVB
Concentration:	10% Solids
Particle Density:	1.05 g/cm <sup>3</sup>
Index of Refraction:	1.59 @ 589 nm (25°C)
Bottle Size:	15 mL, 100 mL* and 1000 mL* (all at 10% solids)
Expiration Date:	≥ 24 months
Additives:	Contains trace amount of surfactant
Package Includes:	Material Safety Data Sheet (MSDS) General Product Handling Insert Sheet
Storage & Handling:	Store at room temperature or refrigerated. Keep bottle tightly sealed to avoid contamination.

\* "B" bottles (100 mL) and "C" bottles (1000 mL) are packaged to order (please allow 3-7 working days).

**Ordering Information**

Catalog Number		Mean Diameter (µm)	Size Uniformity (C.V.)
15mL	100mL*		
7503A	7503B	3.2	≤45%
7505A	7505B	4.3	≤25%
7508A	7508B	8.0	≤20%
7510A	7510B	9.6	≤20%
7516A	7516B	16	≤16%
7520A	7520B	19	≤16%
7525A	7525B	26	≤15%
7545A	7545B	45	≤15%
7550A	7550B	55	≤16%
7575A	7575B	71	≤15%
7590A	7590B	85	≤16%
7602A	7602B	98	≤16%
7640A	7640B	134	≤16%
7725A	7725B	222	≤12%

**General Purpose Latex Particles**  
**5000 Series Latex Microsphere Suspensions**  
**7000 Series Copolymer Microsphere Suspensions**

*Higher Concentration Polymer Microspheres  
in 15, 100 and 1,000 mL Bottles*

**Sales Bulletin 112A**

10/15/05

All products are manufactured and packaged at our ISO 9001:2000 registered facility in Palo Alto. Please feel free to contact our technical services department if you have any questions about these products or have a special material requirement not listed here.

LIMITED WARRANTY: These products are intended for laboratory research use by trained scientific personnel. Determination of their suitability for specific end use is solely the responsibility of the user, who assumes all liability for loss or damage arising out of the use of the product. Rebottling or relabeling voids the warranty and certification. Duke Scientific Corporation's warranty is limited to replacement of defective products if returned with our authorization within 60 days of purchase date.

**Duke Scientific Corporation**

2463 Faber Place, P. O. Box 50005

Palo Alto, California 94303

800-334-3883 or 650-424-1177

Fax: 650-424-1158

[www.dukescientific.com](http://www.dukescientific.com)

Technical Support: [info@dukesci.com](mailto:info@dukesci.com)



*Your Trusted Partner in Particle Science*