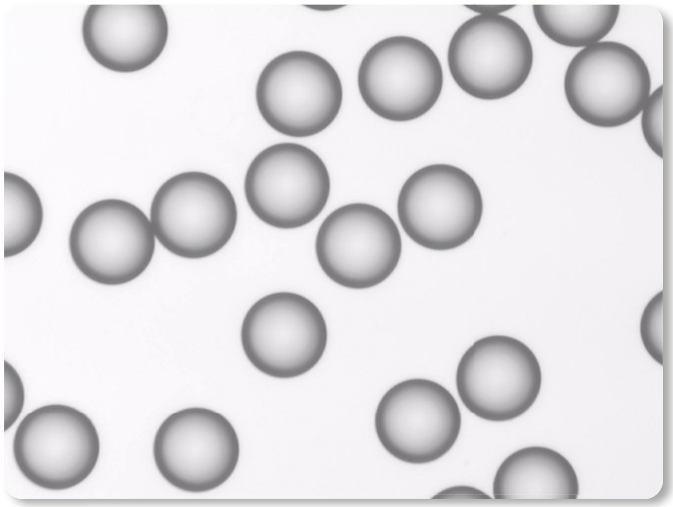
info@applied-microspheres.com
+49 6131 5540080
Nestléstr. 41, 55120 Mainz

Particle Size Standard and Count Control™

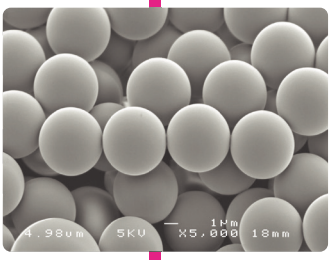
- optimized concentrations for easy application in liquid particle counters
- benchmark in count accuracy with an uncertainty of ± 10 % only
- available in a wide size range of particle diameters from 0,6 µm to 100 µm
- long shelf life at room temperature

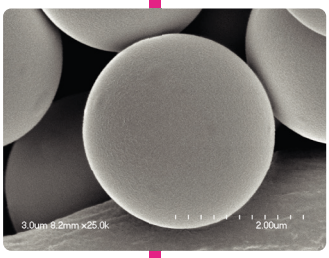


Combined particle size standards and count controls with SI-traceable particle diameter and reliable particle number concentration.

The Applied Microspheres Particle Size Standard and Count Control product line is designed for optimal calibration and validation of particle sizing and counting instruments. They are perfectly suited for their application in liquid laser particle counters. The diameters range from 0,6 to 100 µm and are prepared in a specially formulated medium as low residue aqueous suspensions for minimal background interference. Applied Microspheres' special formulation ensures a long shelf life and allows for storage at room temperature. The products are presented in 20-mL dropper-tip bottles, manufactured in the EU. They are composed of polystyrene and entirely suitable for the desired application, due to its spectral properties (RI = 1,59 @ 589 nm) and low density (1,05 g/cm^3). This leads to slow sedimentation during experiments. The concentration is 104–107 particles/mL, as such adjusted for direct use or easy dilutions. As a main feature, the particle number concentration is controlled extensively, based on representative quality controls. This results in a benchmark count accuracy with an uncertainty of ±10% only.

The particle diameters are traceable to SI which includes NIST traceability. Calibration is achieved using electron or optical microscopy, electrical sensing zone, single particle optical sizing, laser diffraction and analytical differential centrifugation, using reference materials calibrated by ISO/IEC 17025 certified national institutes as well as NIST Standard Reference Materials (SRM).





PIN	Nominal Size	Channel	Nominal Counts/mL
21600-20	0,6 µm	Counts/mL (≥ 0,5 µm)	$1{\cdot}10^{7}$ ± 10 %
21700-20	0,7 µm	Counts/mL (≥ 0,5 µm)	$1{\cdot}10^{7}$ ± 10 %
21800-20	0,8 µm	Counts/mL (≥ 0,5 µm)	$1{\cdot}10^{7}$ ± 10 %
21900-20	0,9 µm	Counts/mL (≥ 0,6 µm)	$1{\cdot}10^{7}$ ± 10 %
22010-20	1 µm	Counts/mL (≥ 0,7 µm)	$1{\cdot}10^{7}$ ± 10 %
22020-20	2 µm	Counts/mL (≥ 1 µm)	$1{\cdot}10^{7}$ ± 10 %
22030-20	3 µm	Counts/mL (≥ 2 µm)	$1{\cdot}10^{7}$ ± 10 %
22040-20	4 µm	Counts/mL (≥ 2 µm)	$1{\cdot}10^{7}$ ± 10 %
22050-20	5 µm	Counts/mL (≥ 2 µm)	$1{\cdot}10^{7}$ ± 10 %
22060-20	6 µm	Counts/mL (≥ 4 µm)	$1{\cdot}10^{7}$ ± 10 %
22070-20	7 µm	Counts/mL (≥ 5 µm)	$1{\cdot}10^{7}$ ± 10 %
22080-20	8µm	Counts/mL (≥ 6 µm)	$1{\cdot}10^{7}$ ± 10 %
22090-20	9µm	Counts/mL (≥ 5 µm)	$1{\cdot}10^{7}$ ± 10 %
22100-20	10 µm	Counts/mL (≥ 5 µm)	$1{\cdot}10^{7}$ ± 10 %
22150-20	15 µm	Counts/mL (≥ 10 µm)	$1{\cdot}10^{6}$ ± 10 %
22200-20	20 µm	Counts/mL (≥ 10 µm)	$1{\cdot}10^{6}$ ± 10 %
22250-20	25 µm	Counts/mL (≥ 15 µm)	$1{\cdot}10^{6}$ ± 10 %
22300-20	30 µm	Counts/mL (≥ 20 µm)	$1{\cdot}10^{6}$ ± 10 %
22400-20	40 µm	Counts/mL (≥ 25 µm)	$1{\cdot}10^{5}$ ± 10 %
22500-20	50 µm	Counts/mL (≥ 25 µm)	$1{\cdot}10^{5}$ ± 10 %
22600-20	60 µm	Counts/mL (≥ 40 µm)	$5{\cdot}10^{4}$ ± 10 %
22700-20	70 µm	Counts/mL (≥ 50 µm)	$5{\cdot}10^{4}$ ± 10 %
22800-20	80 µm	Counts/mL (≥ 50 µm)	$5{\cdot}10^{4}$ ± 10 %
22900-20	90 µm	Counts/mL (≥ 50 µm)	$1{\cdot}10^{4}$ ± 10 %
23010-20	100 µm	Counts/mL (≥ 50 µm)	$1{\cdot}10^{4}$ ± 10 %