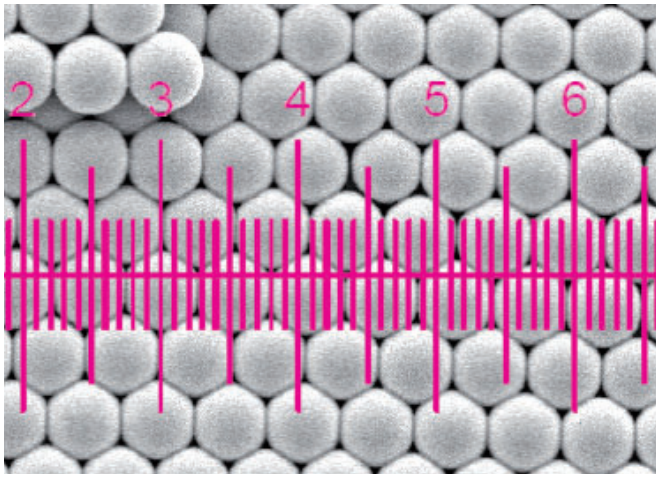
NanoStandard™ Series
MicroStandard™ Series

The NanoStandard™ and MicroStandard™ product line from Applied Microspheres is a series of traceable particle size standards. Particle size standards are widely used in quality control laboratories in the pharmaceutical, semi-conductor, diagnostic and many other industries. They are used to validate particle sizing - and counting instruments as well as for the performance of routine instrument checks and calibrations. They are not only traceable to the standard meter through an unbroken chain of measurements through the National Institute of Standards and Technology (NIST), but also to the standard meter of the international System of Units (SI). Traceability to the SI is obtained through reference materials calibrated by a third party, an ISO/IEC accredited organisation. The methods this laboratory applies are performed following DS/EN ISO/IEC 17025.

NanoStandards™ and MicroStandards™ meet the highest international metrological standards and therefore provide accurate and traceable size calibration for particle size analysis. This allows laboratories to prove that their procedures, systems and measurements meet standards as proscribed by international standardisation organisations such as ISO, GMP/GLP, ASTM, CEN, amongst others.



The use of NanoStandards™ and MicroStandards™ also substantiates inter-laboratory standardization. Nano- and MicroStandard series particle size standards consist of a series of monodisperse polymer microspheres. The diameters are calibrated by validated particlesize analysis instruments including Dynamic Light Scattering (DLS) and Centrifugal Disc Photo-Sedimentometer (CPS). Imaging technologies of Transmission Electronic Microscopy (TEM), Scanning Electronic Microscopy (SEM), and Optical Microscopy (OM).

NanoStandards™ are available in diameters ranging from 20 nm - 990 nm. MicroStandards™ are available in diameters from 1 µm - 220 µm. Larger diameters are available on request. They are suspended in aqueous medium with trace amounts of an antimicrobial agent and proprietary surfactant for optimal colloidal stability. For ease of dispersion they are packaged in 20 ml dropper tip bottles at a concentration of 1% (w/v) for the NanoStandard™ diameters and optimal concentrations for each diameter in the MicroStandards™ range. Each product is provided with a certificate of traceability stating the certified mean diameter and the expanded uncertainty. Product and lot specific physical data such as standard deviation, C.V., composition, density and refractive index are provided, but not certified.

NanoStandard™

Product Identification Number (PIN)	Nominal / µm	Volume	Solids
10020-20	0,020 µm	20 mL	1 %
10050-20	0,050 µm	20 mL	1 %
10100-20	0,100 µm	20 mL	1 %
10150-20	0,150 µm	20 mL	1 %
10200-20	0,200 µm	20 mL	1 %
10250-20	0,250 µm	20 mL	1 %
10300-20	0,300 µm	20 mL	1 %
10350-20	0,350 µm	20 mL	1 %
10400-20	0,400 µm	20 mL	1 %
10500-20	0,500 µm	20 mL	1 %
10600-20	0,600 µm	20 mL	1 %
10700-20	0,700 µm	20 mL	1 %
10800-20	0,800 µm	20 mL	1 %
10990-20	0,990 µm	20 mL	1 %

MicroStandard™

Product Identification Number (PIN)	Nominal / µm	Volume	Solids
11010-20	1,00 µm	20 mL	1 %
11015-20	1,50 µm	20 mL	1 %
11020-20	2,00 µm	20 mL	1 %
11025-20	2,50 µm	20 mL	1 %
11030-20	3,00 µm	20 mL	1 %
11040-20	4,00 µm	20 mL	1 %
11050-20	5,00 µm	20 mL	1 %
11060-20	6,00 µm	20 mL	1 %
11070-20	7,00 µm	20 mL	1 %
11080-20	8,00 µm	20 mL	1 %
11100-20	10,0 µm	20 mL	2 %
11150-20	15,0 µm	20 mL	2 %
11200-20	20,0 µm	20 mL	2 %
11250-20	25,0 µm	20 mL	2 %
11300-20	30,0 µm	20 mL	2 %
11400-20	40,0 µm	20 mL	2 %
11500-20	50,0 µm	20 mL	2 %
11700-20	70,0 µm	20 mL	2 %
11900-20	90,0 µm	20 mL	2 %
12010-20	100 µm	20 mL	3 %
12014-20	140 µm	20 mL	3 %
12022-20	220 µm	20 mL	3 %

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