301.1 - Particle Size (powder and solid forms)

These SRMs are intended for evaluating and calibrating specific types of particle size measuring instruments, including light scattering, electrical zone flow-through counters, optical and scanning electron microscopes, sedimentation systems, and wire cloth sieving devices.

SRMs 1004b, 1017b, and 1019b each consist of soda-lime glass beads covering a particular size distribution (PSD) range.

SRM 1978 consists of granular, irregular shaped zirconium oxide particles measured using sedimentation.

SRM 1961 is monodisperse latex particles in a water suspension produced by the National Aeronautics and Space Administration (NASA).

RMs 8012 and 8013 are gold nanoparticles in water.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	Description	Unit Size	Particle Diameter Distribution
1017b	Glass Beads - Particle Size Distribution (100 µm to 400 µm diameter range)	70 g	100 to 400 µm (140 to 45 mesh)
1019b	Glass (Particle Size)	200 g	750 to 2450 µm (20 to 10 mesh)
1021	Glass (Particle Size)	4 g	2 to 12 µm
1690	Polystyrene Spheres (Nominal Diameter 1 µm)	5 mL	0.895 µm
1691	Polystyrene Spheres (Nominal Diameter 0.3 µm)	5 mL	0.269 µm
1961	Nominal 30- µm Diameter Polystyrene Spheres	5 mL	29.64 µm
1963a	Polystyrene Spheres (Nominal Diameter 100 nm)	5 mL	0.1018 µm
1978	Particles Size Distribution Standard for Gravity Sedimentation	5 g	0.33 to 2.19 µm
1984	Thermal Spray Powder - Particle Size Distribution Tungsten Carbide/Cobalt (Acicular)	14 g	9 to 30 µm
1985	Thermal Spray Powder - Particle Size Distribution Tungsten Carbide/Cobalt (Spheroidal)	14 g	18 to 55 µm
8012	Gold Nanoparticles, Nominal 30 nm Diameter	2 x 5 mL	*30 nm*
8013	Gold Nanoparticles, Nominal 60 nm Diameter	2 x 5 mL	*60 nm*
8634	Ethylene Tetrafluoroethylene for Particle Size Distribution and Morphology	20 mL	*particle size distribution and particle morphology*
8988	Titanium Dioxide Powder - Particle Size Distribution	6 g	*0.1 to 0.5 µm*

- Certified values are normal font.
- Non-certified and reference values are italicized.
- Values of potential interest and information values are within parentheses.