

Colloidal silica in water - Particle size

Art. ID	ERM-FD100
Unit	ampoule
Delivery details	No Dangerous Good /not restricted

Description

ERM-FD100 is a certified reference material and consists of colloidal silica nanoparticles suspended in a water-based solution. It is available in 10 ml pre-scored amber glass ampoules containing approx. 9ml of suspension. The intended use is to check the performance of instruments and/or methods that characterise the particle size distribution of nanoparticles (particle size ranging from approx. 1 nm to approx. 100nm) suspension in a liquid medium.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
Equivalent Spherical Diameter	Intensity-weighted harmonic mean diameter		19,0 ± 0,6	nm	Dynamic light scattering according to ISO 22412:2008 (cumulants method)	
Equivalent Spherical Diameter	Intensity- based modal Stokes diameter		20,1 ± 1,3	nm	Centrifuge liquid sedimentation according to ISO 13318-1:2001	
Equivalent Spherical Diameter	Number-based modal diameter		19,4 ± 1,3	nm	Electron microscopy (transmission electron microscopy/scanning electron microscopy)	
Equivalent Spherical Diameter	Intensity-weighted mean diameter		21,8 ± 0,7	nm	Small angle X-ray scattering	