PRODUCT INFORMATION

Density Reference Liquids

Calibration laboratory for length, electrical, mechanical, thermodynamic and analytical measurands

DAR-Registration Number: DKD-K-06901

According to the International System of Units (SI) ***density*** is a derived unit, it is defined as quotient of mass *m* of a substance and its volume *V*. The SI Unit of density is kg/m³. Generally density figures refer to a reference temperature of 20°C (according to International Temperature Scale ITS-90).

Reference liquids of density are used to achieve quality assurance for calibration of density measuring devices, i.e. flexural resonator measuring devices, in all sectors of chemical and pharmaceutical industry as well as in other industry.

Our DKD Calibration Laboratory DKD-K-06901 ensures the metrological traceability to PTB via reference standard measuring equipment basing on the principle of Archimedes after the hydrostatic weighing process.

This absolute method enables the direct metrological traceability to the National Standard kept at the Physikalisch-Technische Bundesanstalt (PTB), Braunschweig and Berlin via density standard ball.

The flexural resonator measuring method (viscometer of oscillating type) is applied for quality control of the density reference liquids.

Our density reference liquids are available in ranges as follows (*Guidelines in kg/m³ at 20°C*):

Density Reference Liquid *(Guidelines for the density in kg/m³)*	**690**	**720**	**816**	**820**	**827**	**873**	**998**	**1250**	**1620**
Measuring uncertainty U in kg/m³ for the density determination at the reference standard measuring equipment	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Measuring uncertainty U in kg/m³ for the provision of density reference liquids *)	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03

*) *The measuring uncertainty includes the influences by correct transport and storage.*

The density value at 20°C is given in the **DKD Calibration Certificate**. On request the determination and notification of density at 15°C, 25 °C, 30 °C, 40 °C and 50 °C to 50°C is possible with surcharge.

Availability: 5 ml, 10 ml

The density reference liquid has to be kept dry and in the dark in the unopened ampoule. It should be used within ***2 months*** from the date of calibration given on the label. After opening the ampoule the density reference liquid has to be used immediately and one time only.

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