

iVisc – User-friendly system for the measurement of kinematic viscosity



iVisc – Automatic precision and reproducibility

Your stopwatch may take a break

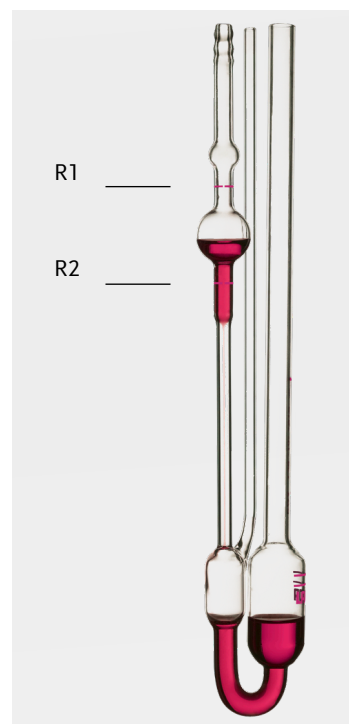
Capillary viscometry - the reference method

In capillary viscometers, the velocity gradient of a laminar flow within a measuring capillary is used for viscosity measurement, giving the most precise measurements.

The driving force is the sample itself, i.e. gravity acting on the liquid column of the sample. With Ubbelohde viscometers, the time required for the liquid meniscus to descend from the ring mark R1 to the ring mark R2 is measured precisely, historically with a stopwatch, currently by electronic means.

Precision according to standard

- || The special precision of the method according to ISO 3105 and ASTM D445 results from the precision of the LAUDA Scientific capillary, the vertical alignment, the accurate time measurement to 1/100s by using infrared light barriers and, of course, the temperature control with LAUDA thermostats to 1/100 °C accuracy.
- || Worldwide compatibility of your results is guaranteed with this standard.



$$v = K \cdot (t - \Delta t)$$

Reproducible and precise measurement

Simple, automatic viscosity determination with the iVisc – ideal for person-independent, GLP-compliant measurement. Simply plug in the USB cable, start the software and the capillary viscometer is ready for operation.

For all capillaries

- || Compatible with all common capillaries (Ubbelohde, Cannon-Fenske, Mikro-Ubbelohde and many more).

Relevant technical standards

DIN ISO 307, DIN EN 1628-2, DIN EN 1628-3, DIN EN 922, PharmEUR, ISO 2909, ASTM D2532, IEC 60450, DIN 53000

Applications in the polymer industry

Viscometric determination of molar mass, viscosity number and Staudinger Index provides important information about the polymer structure for production, processing and application. Scientific rheological investigations profit also from the additional information of these results.

Typical fields of application

- || Technical polymers, transparent polyolefins, polyvinyl chloride, medical polymers, cellulose and papers

Other applications

- || Lubricants and fuels, insulating oils, waxes, resins, silicone oils and polyols

Relevant application standards

DIN ISO 307, DIN EN 1628-2, DIN EN 1628-3, DIN EN 922, PharmEUR, ISO 2909, ASTM D2532, IEC 60450

Comprehensive solutions

For determination of absolute viscosity of polymer solutions, oils and other Newtonian liquids

Lowest cost and best handling efficiency based on iVisc

Research and development of lubricants

- || iVisc and Viscotemp 18 are a budget and bench-space sensitive way to measure viscosity
- || Precise measurement in accordance with ASTM D 445
- || Compatible with Ubbelohde and Cannon-Fenske viscometers
- || External cooler for measurements at 20 °C (optional)
- || Recommended sample throughput 1 to 5 samples per day



Easy to operate and compact: automatic, space-saving iVisc and Viscocool 6 – your start with professional viscometry

For quality control of polymers, recycled materials and finished products

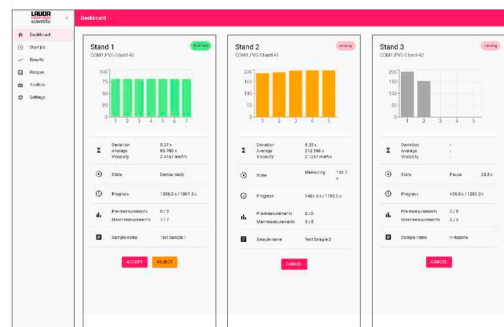
- || Bench-space sensitive solution by combining iVisc and Viscocool 6
- || Peltier-based, highly precise temperature control from 15 to 90 °C
- || Exceptional temperature stability < 0.01 °C without external cooling
- || Ideal platform for flexible polymer characterisation
- || Advanced calculation algorithms already integrated
- || Recommended sample throughput 2 to 4 samples per day



Efficient software solution - Visco.Pilot for iVisc

Comprehensive control and data management

- || Support of multi-instrument measurements with iVisc for increased sample throughput
- || User-defined measurement procedures
- || Integrated formulas and viscometer database
- || Intuitive handling and user-friendly interface for easy lab routines
- || Result visible on dashboard in real-time



Viscocool 6 and Viscotemp ET

Precise and flexible viscosity measurements

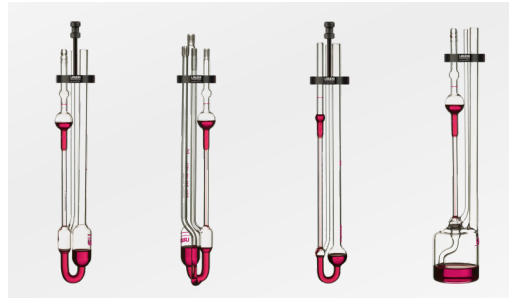
- || Thermoelectric cooling technology for smallest bench space (for Viscocool 6)
- || Temperature range 15 to 90 °C (Viscocool 6) or ambient temperature up to 100 °C (Viscotemp ET) without external cooling
- || Easy setup for quick cleaning
- || Controllable pump for perfect homogeneity



The perfect capillary for every application

Ubbelohde and Micro-Ubbelohde viscometer according to ISO 3105

- || For viscosities from 0.3 mm²/s to 30,000 mm²/s
- || Also available as dilution capillary or for automatic cleaning
- || With calibration certificate
- || Durable ring marks and serial numbers



55 years of experience and continuous dialog with our customers – the basis for the Visco.Fix system.

Your everyday life: glass breakage of your sensitive Ubbelohde capillary. Our solution: Visco.Fix – makes work reliable, clean and safe:

Reliable

- || Even in the hectic daily laboratory routine – our capillaries with Visco.Fix are effectively protected.
- || Significantly longer lifetime due to made-to-last design
- || Higher precision due to longer use of the same capillary
- || Always the right capillary at hand with the Visco.Fix carousel

Clean

- || Easy cleaning with individual beakers
- || For clean and safe draining and drying
- || No more dust inside your capillaries

Safe

- || No more glass breakage in the tempering bath
- || Robust in handling and transport
- || Convenient storage of the capillaries



Technical data	iVisc (LMV 830)
Sample temperature range	-20...150 °C
Measurement range time	0...9,999.99 s
Recommended measurement range of flow time	30...1,000 s
Viscosity range	0.3...30,000 mm ² /s
Resolution of time measurement	10 ms
Meniscus detection	Optical (near infrared)
Total power consumption	1 W
Dimensions (WxDxH)	95 x 96 x 425 mm
Power supply	USB
Weight, net	1.4 kg
Compatible Windows versions	7, 8, 8.1, 10, 11