

byko-visc CP

Cone and Plate Viscometer

The byko-visc CP Cone and Plate viscometer allows for the precise determination of the absolute viscosity of materials using minimal sample sizes. With built-in temperature control and constant shear rates throughout the whole sample it can measure and predict the performance of your samples closer to the conditions in your manufacturing or application process (E.g. Spreading of paint on a wall or flowing of a polymer melt inside a pipe). The byko-visc CP combines the ability to measure low shear applications such as automotive clear coats and high shear applications such as wall paints in one instrument without a loss in accuracy. The desired viscosity ranges can be customized according to different use cases by a selection of ten (separately available) cones. The byko-visc CP Cone and Plate viscometer offers a practical solution for any QC or R&D lab requiring quick, easy and reliable testing of the behavior of a liquid under different conditions.



Determine the absolute viscosity

The cone and plate viscometer is a crucial piece of equipment that accurately measures a fluid's viscosity, which is its resistance to flow. It comprises of two primary components: a stationary, flat-bottomed plate and an inverted, conical spindle. When placed in a fluid sample, the spindle rotates at a constant speed while its motion is monitored using mechanical or optical systems. The torque exerted on the shaft reveals the rheological properties of the fluid, thus providing an accurate measure of viscosity.

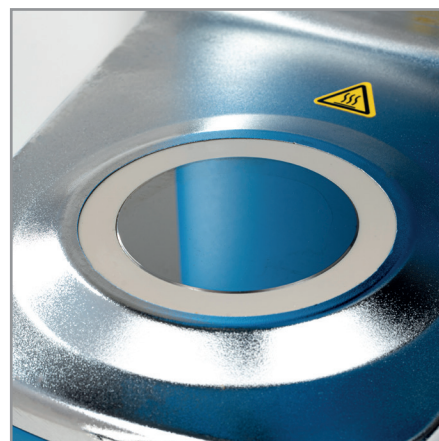
- Fixed cone geometries allow for absolute viscosity determination
- Small (>2 mL) sample sizes save both material and time required to clean instrument
- Constant shear rates throughout the sample make it ideal for non-Newtonian samples
- Measure high and low shear applications with one instrument
- Switch cones without the need for recalibration
- Bayonet coupling for easy cone attachment



Built-in temperature control

Temperature is an important parameter in viscosity measurements because it influences the fluid's properties. Generally, most fluids become more viscous at lower temperatures and less viscous as temperature increases. This should be taken into consideration when selecting test conditions. The byko-visc CP allows for easy temperature control through its built-in heating (L+H) and cooling (L only) systems.

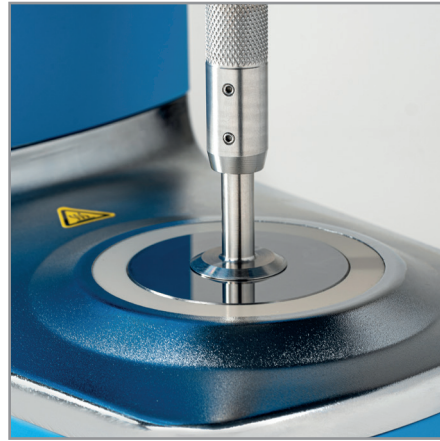
- Built-in temperature control for reliable measurements
- Small sample sizes allow for rapid heating and cooling of the analyte
- Robust tungsten carbide sample plate guarantees longevity



Excellent accuracy and repeatability

Accurate and reproducible data ensure the consistency and quality of products. The direct drive technology adds improved precision and durability. Each test condition is recorded for detailed analysis and review. This precision is repeatable day-to-day and instrument-to-instrument, thanks to instrument design and BYK-Gardner's quality control.

- Accuracy within 2% of the full-scale range
- Repeatability of $\pm 0.2\%$
- Test conditions automatically recorded by the instrument



Best Value

The byko-visc CP Lite is a simpler, streamlined version with pre-defined speeds according to established ASTM and ISO standards. It offers all essential features for viscosity measurements, making it a cost-effective and economical choice for the industry. The byko-visc CP option offers freely selectable speeds and a wide selection of curve fitting routines to determine the characteristic rheological factors of non-Newtonian paints and other liquids. This represents an economical and time saving method to get the parameters you want right from the instrument.



Standards

In compliance with:
ISO 2884
ASTM D4287
D7395
BS3900-A7

Catalog Number	5210	5211	5212	5213
Short Description	byko-visc CP L	byko-visc CP H	byko-visc CP Lite L	byko-visc CP Lite H
Measuring Range	15 - 1.5 Mio. cP		20 - 75000 cP	
Temperature Range	5 - 75 °C 41 - 167 °F	50 - 235 °C 122 - 455 °F	5 - 75 °C 41 - 167 °F	50 - 235 °C 122 - 455 °F
Shear Rate	10-13,300 1/sec		200-12,000 1/sec	
No. of Spindles	10 (not included)			
No. of Speeds	Freely selectable		4	
Speed Range	5 - 1000 rpm		100 - 900 rpm	
Speeds	variable		100, 400, 750 & 900 rpm	
Repeatability	0.2%			
Accuracy	±2.0% of full scale			
Power supply	Worldwide power supply, 24 V voltage DC input / Separate 24 V DC power supply			
Weight	6.5 kg 14.3 lb			
Dimensions: L x W x H	30 x 17 x 43 cm 11.5 x 6.5 x 17 in			
Languages	English, German, French, Italian, Spanish, Portuguese, Japanese, Chinese			

Delivery Content

Cone and Plate Viscometer
Power supply
Certificate

Catalog Number	Short Description
8375	Cone No.1 for byko-visc CP
8376	Cone No.2 for byko-visc CP
8377	Cone No.3 for byko-visc CP
8378	Cone No.4 for byko-visc CP
8379	Cone No.5 for byko-visc CP
8380	Cone No.6 for byko-visc CP
8381	Cone No.7 for byko-visc CP
8382	Cone No.8 for byko-visc CP
8383	Cone No.9 for byko-visc CP
8384	Cone No.10 for byko-visc CP