

Elcometer 2200 Digital Viscometer



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This simple to use rotational viscometer consists of a spindle and paddle. The spindle is rotated at 200rpm and, when the paddle is immersed in the sample coating, the Elcometer 2200 automatically calculates the viscosity value from the power required to maintain the spindle at 200rpm.

A Choice of Three Viscosity Ranges

A digital display, at a flick of a switch, shows the reading selected in either:

- Centipoises
- Krebs Units
- Grams

The Elcometer 2200 can also be fitted with an air purge for use in a hazardous environment.

At a glance

- Consists of a spindle, which is rotated at 200rpm and a paddle.
- A viscosity value is calculated automatically when the paddle is immersed in the coating.
- Displayed in either Centipoises, Krebs Units or Grams.

Can be used in accordance with:	
ASTM D 562	ASTM D 856
ASTM D 1131	FTMS 141 M 4281

Range	Centipoise: 150 to 4000cP	Krebs Units: 40 to 140KU	KU Weight: 35 to 1150g
Resolution	Centipoise: 1.0cP	Krebs Units: 0.1KU	Weight: 1.0 g
Accuracy	± 1.0% of full scale		
Spindle Rotation Speed	200rpm ± 0.2 rpm		

Model	Description	Part Number		
		UK 240V	EUR 220V	US 110V
Elcometer 2200/1	Elcometer 2200 Digital Viscometer	K0UK2200M202	K0002200M202	K0US2200M202
Elcometer 2200/2	Elcometer 2200 Digital Viscometer with air purge	K0UK2200M203	K0002200M203	K0US2200M203

Rotational Viscosity

Viscosity - A measure of the resistance of a fluid to flow

Thixotropic - Describes materials that are gel-like at rest but fluid when agitated.

Centipoise - A unit of measurement of which water is the standard at 1 cps.

Newtonian Fluids - The viscosity of a Newtonian fluid is dependent only on temperature but not on shear rate and time.

Non-Newtonian fluids - time dependent . The viscosity of the liquid is dependent on temperature, shear rate and time.

Depending on how viscosity changes with time the flow behaviour is characterised as:

Thixotropic (time thinning, i.e. viscosity decreases with time)

Rheopetic (time thickening, i.e. viscosity increases with time)

Thixotropic liquids are quite common in the chemical and food industries. Rheopetic liquids are very rare. *Note: some liquids show time thinning behaviour due to breakdown of structure. This phenomenon is sometimes known as Rheomaiaxis*

Non-Newtonian fluids - time independent - The viscosity of a Non-Newtonian time independent liquid is dependent not only on temperature but also on shear rate.

Depending on how viscosity changes with shear rate the flow behaviour is characterised as:

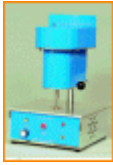
Shear thinning – also known as Pseudoplastics - the viscosity decreases with increased shear rate.

Shear thickening – also known as Dilatant - the viscosity increases with increased shear rate.

Plastic - exhibits a so-called yield value, i.e. a certain shear stress must be applied before flow occurs.

VISCOSITY OILS FOR ROTATIONAL VISCOSITY					
Description	Centipoise	Part Number	Description	Centipoise	Part Number
Standard Oil For Rotational Viscometer 60 ml	300	KT009999N001	Standard Oil For Rotational Viscometer 500 ml	300	KT009999N101
Standard Oil For Rotational Viscometer 60 ml	700	KT009999N002	Standard Oil For Rotational Viscometer 500 ml	700	KT009999N102
Standard Oil For Rotational Viscometer 60 ml	1000	KT009999N003	Standard Oil For Rotational Viscometer 500 ml	1000	KT009999N103
Standard Oil For Rotational Viscometer 60 ml	25000	KT009999N004	Standard Oil For Rotational Viscometer 500 ml	25000	KT009999N104
Standard Oil For Rotational Viscometer 60 ml	40000	KT009999N005	Standard Oil For Rotational Viscometer 500 ml	40000	KT009999N105

Related products



Elcometer 2205

This analog Cone and Plate Viscometer is a very simple to use gauge which has been designed to provide high shear rate tests for coatings. Running at a single speed of 900rpm (60Hz) or 750rpm(50Hz) the Elcometer 2205 is available in Low or High Temperature Model Versions.



Elcometer 2206

This digital cone and plate viscometer is designed to provide fast results which makes this model ideal for the Process Control and Quality Departments when monitoring production. A range of low and high temperature models are available with either fixed or variable temperature variants.



Elcometer Viscosity
Cups

Very easy to use instruments of anodized aluminium with a stainless steel orifice. Viscosity Flow Cups are used for measuring the consistency of paints, varnishes and other similar products.

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