FLOW CUPS

These easy to use cups determine the flow time of paints, varnishes and other Newtonian (or near Newtonian) fluids. There are many types available, all engineered to the relevant national standards. This measured kinematic viscosity is generally expressed in seconds of flow time which can be converted into centistokes (cSt) using a viscosity calculator

Method of Use

(Excluding Zahn - and shell type cups)
Please refer to the relevant national standard for detailed instructions.

- Select a suitable cup. (Please see over for flow times).
- Ensure that the cup and test fluid are at the required temperature
- Ensure no bubbles or debris are in the test fluid.
- Seal the cup orifice (usually with a finger) and fill with test fluid, level the top of the fluid with a scraper.
- Break-point procedure - remove finger from the orifice and simultaneously begin to time. At the first break in flow stop the timer. This elapsed time represents the 'flow-time' of the test fluid.
- Fixed-volume procedure - proceed as above, but stop timing when 50ml has passed into a graduated measuring cylinder.

*** Certificates of Conformity or Calibration can be supplied for any cup. These certificates must be requested at the time of purchase**

T-4 Flow Cup

It is applicable to the determination of viscosity of a certain coating materials of which the flow time determined by it is under 150s.

Volume of cup	100ml
diameter of orifice	Φ4mm
Height of orifice	4mm
angle of cone	81°
Correct coefficient	0.97-1.03

ISO Flow Cup

It is to determine the flow time of Newtonian and near Newtonian model fluids. Suitable for testing kinematics viscosity range of sample within 7-685mm2/s.

Type	Testing Range	Calculation
ISO-3	7-40 mm^2/s	v=0.443t-200/t
ISO-4	35-135 mm^2/s	v=1.37t-200/t
ISO-5	100-300 mm^2/s	v=3.28t-200/t
ISO-6	220-685 mm^2/s	v=6.9t-570/t

Ford Cups

The Ford Cups are manufactured in accordance with ASTM D1200. When using a Ford Cup and when retesting liquids that the temperature of the cup and the liquid is maintained, as ambient temperature makes a significant difference to viscosity and thus flow rate.

Type	Range in Centistokes	Efflux Time (s)
Ford Cup 2	20-120	40-100
Ford Cup 3	49-220	20-100
Ford Cup 4	70-370	20-100
Ford Cup 5	200-1200	20-100

MODERN INSTRUMENTS

No 18, Xuwang Road, QingPu District Shanghai, China

+86 2159884839

info@moderner.com

DIN Cup

DIN cup is designed for quick, approximate determination of efflux times for paints, and similar liquids in workshops. In accordance with DIN 53211. The measured kinematic viscosity is generally expressed in seconds(s) flow time. If the Standards stipulate conversion methods the flow time can be converted into Centistokes (cSt) using a viscosity calculator.

Type	DIN-4	DIN-6
Volume	100±1ml	
Orifice	4±0.02mm	6±0.02mm
Range	96~683cSt	550~1500cSt
Outflow Time	25~150s	20~100s
Material	Aluminium Alloy	
Nozzle	Stainless Steel	

Zahn Cup

Zahn Cups are applied to determine the viscosity of the Newtonian and near Newtonian fluids. CNDB DIP Viscosity Cup (Zahn Type) produced by our company is in accordance with specification of ASTM D4212-93.

Type	Volume (ml)	Aperture (mm)	Range in centistokes	Efflux Time (s)
CNDB-1		1.98	5-60	35-80
CNDB-2		2.74	20-230	20-80
CNDB-3	45±2	3.76	150-850	20-80
CNDB-4		4.27	220-1100	20-80
CNDB-5		5.28	460-1840	20-80

MODERN INSTRUMENTS

No 18, Xuwang Road, QingPu District Shanghai, China

+86 2159884839

info@moderner.com

Flow Cup Stand

The Flow Cup Stands are precision engineered to ensure the required stability when performing a viscosity flow cup test. We have two options to choose from.

- Water Circulation Stand
- Tri-Stand

Type	Description
XD-1419	Water Circulation Stand
XD-1422	Tri-Stand

MODERN INSTRUMENTS

No 18, Xuwang Road, QingPu District Shanghai, China

+86 2159884839

info@moderner.com