

Viscosity Cup

All fluids have an internal friction between molecules, which determines how well fluid flows. Due to this internal friction, energy is required to move the liquid and viscosity is the measure of the resistance to flow.



Ford Viscosity Cups



ISO Flow Cups



DIN Cups

Descriptions	Ford Viscosity Cups	ISO Flow Cups	Din Cups
Features	For low viscosity liquids	Recommended for international use, provides different efflux time.	Are designed for quick, approximate determination of efflux times for paints, and similar liquids in workshops, at paint manufacturers and customers
Body Materials	Body made of aluminum, copper alloy orifice, interior polished	Body made of anodized aluminum, stainless steel orifice, interior polished.	Cups: Anodized Aluminum Orifice: Stainless Steel
Standards Accordance	ASTM D 1200, ASTM D 333, ASTM D 365	ISO 2431, ASTM D 5125	DIN 53211

Technical Specification for Ford Viscosity Cups:

Cups No.	Orifice (mm)	Range (cSt)	Efflux (Sec)
1	1.90	10 ~ 35	25 ~ 105
2	2.53	25 ~ 120	25 ~ 105
3	3.40	49 ~ 220	25 ~ 105
4	4.12	70 ~ 370	20 ~ 105
5	5.20	200 ~ 1200	20 ~ 105

Technical Specification for ISO Flow Cups:

Cups No.	Orifice (mm)	Range (cSt)	Efflux (Sec)
3	3	7 ~ 42	30 ~ 100
4	4	34 ~ 135	25 ~ 100
5	5	91 ~ 326	25 ~ 100
6	6	188 ~ 684	25 ~ 100

Technical Specification for DIN Cups:

Capacity	100ml
Orifice Diameter	4mm
Efflux Time	20~ 100sec
Test Range	96 ~ 683 cSt
NOTE: Orifice Diameter: 2mm, 3mm, 5mm, 6mm and 8mm also available	

Universal Tripod Stand for Flow Cup

Suitable for all flow cup diameters less than 56mm

Specification:

Material	Aluminum Alloy
Inner Diameter of Ring Support	57mm
Weight	450g
Tripod Height	230mm (adjustable)
Accessories	Circular bubble levels, glass sheet





DIN Dip Cups



Zahn Cups

Descriptions	Din Dip Cups	Zahn Cups
Features	Are designed for quick, approximate determination of efflux times for paints, and similar liquids in workshops, at paint manufacturers and customers	Can be used in any where, in shops, factories and laboratories. For quickly checking and adjusting the viscosity of many different types of liquids
Materials	Cups: Anodized Aluminum Orifice: Stainless Steel	Stainless Steel
Standards	DIN 53211	ASTM D 4212

Technical Specification for DIN Dip Cups:

Capacity	100ml
Orifice Diameter	4mm
Efflux Time	20~ 100sec
Test Range	96 ~ 683 cSt

NOTE: Orifice Diameter: 2mm, 3mm, 5mm, 6mm and 8mm also available

General Information:

Dip Viscosity Cups (Zahn Type) are robust instruments which are inexpensive and easy to operate. They may be used anywhere to test the viscosity of a wide variety of fluids in accordance with ASTM Standard Test Methods D816, D1084, or D4212. Ranges of viscosity from about 20 to 1800 centistokes (cSt) for different materials can be evaluated with a set of five different cups as shown below:

Cups No.	Orifice (mm / inch)	Range (cSt)	Efflux (Sec)	Application (Material)	Conversion Factor	
					k	C
#1	2.00 / 0.08	60	35 ~ 80	Max very thin Liquids	1.1	29.0
#2	2.74 / 0.11	20 ~ 230	20 ~ 80	Thin Oils, Mixed Paints, Lacquers	3.5	14.0
#3	3.76 / 0.15	150 ~ 850	20 ~ 80	Medium Oils, Mixed Paints, Enamels	11.7	7.5
#4	4.26 / 0.17	220 ~ 1100	20 ~ 80	Viscous Liquids and Materials	14.8	5.0
#5	5.28 / 0.21	460 ~ 1840	20 ~ 80	Extremely Viscous Liquids and Materials	23.0	0.0

Remark: Centistokes x Specific Gravity (Density) = Centipoise

Centistokes = K * (efflux time - C)