



EIE INSTRUMENTS PVT. LTD.
(An ISO 9001:2015 Certified Company)

FLOW CUP VISCOMETER - B6 TYPE-WITH STAND



B-6 type Flow Cup Viscometer conforming to **GOST 8420**, suitable for conditional viscosity measurement of paints and coatings.

1. Scope & Application

The **B-6 Type Flow Cup Viscometer** is used for the **determination of conditional viscosity** of paints, varnishes, lacquers, enamels, resin solutions, and similar coating materials by measuring **efflux time under gravity**.

This viscometer is primarily intended for **process control, production monitoring, and factory acceptance testing**, especially in regions following **CIS / Eastern European standards**.

2. Applicable Standard

- **GOST 8420**
- *Paint materials – Determination of conditional viscosity by efflux viscometer (Type B)*
- **Note:** B-6 Flow Cup is **not covered by IS, ISO, ASTM, or DIN standards** and shall not be claimed as equivalent to them.

3. Principle of Operation

The test is based on measuring the **time in seconds** required for a fixed volume of liquid to flow through a **precision orifice** under gravity at a controlled temperature. Results are reported as: **"Viscosity = XX seconds (B-6 cup)"** Values are **conditional** and **not directly convertible** to kinematic viscosity (cSt) without empirical correlation.

4. Technical Specifications

4.1 Flow Cup

- Type: Efflux / Overflow cup
- Construction material: Corrosion-resistant metal - **Brass** (Also available in aluminium alloy or stainless steel at extra cost)
- Internal surface finish: Smooth, free from burrs and machining marks

4.2 Orifice (Jet)

- Nominal orifice diameter: **6.0 mm**
- Jet material: Stainless steel
- Orifice finish: Precision machined for repeatable flow

4.3 Cup Capacity

- Nominal volume: **Approx. 100 mL**
- Filling method: Overflow to rim (non-graduated)

5. Test Conditions

- **Standard test temperature: 20 °C ± 0.5 °C**
- Flow time unit: Seconds (s)
- Applicable flow regime: Newtonian and near-Newtonian liquids

6. Measurement Performance

- Measurement resolution: 0.2 s or better (with suitable stopwatch)
- Repeatability: As defined by GOST 8420 when test conditions are maintained
- Output: Conditional viscosity in seconds (B-6)

7. Standard Accessories (Supplied)

1. B-6 Flow Cup with precision 6.0 mm orifice
2. Cup holding stand
3. Instruction manual

At Extra cost

- Flat glass plate / straight edge for levelling the liquid surface
- Spirit level
- Digital stopwatch
- Certified laboratory thermometer (0–50 °C, 0.1 °C resolution)
- Temperature-controlled test cabinet
- Cleaning kit (non-metallic brushes, solvent-resistant wipes)

9. Typical Applications

- Industrial and decorative paints
- Alkyd, epoxy, oil-based coatings
- Printing inks and lacquers
- Resin and polymer solutions

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