

The Baker Viscosity Cup Series includes the following models:

B3200 Viscosity Cup No.2, 20-80 sec, B3300 Viscosity Cup No.3, 20-75 sec, B3500 Viscosity Cup No.5, 20-80 sec.



Product Quality

This product has been manufactured in an ISO9001 facility and has been calibrated during the manufacturing process to meet stated product specifications. If a certificate of calibration is required please contact the nearest authorized Baker distributor or authorized Service Center.

Note: An additional fee for this service will apply.

Features

- Simple and durable
- 12" handle with ring ensures that the Zahn cup remains at level
- Precision-drilled orifice
- Complies with ASTM D 4212, D816, D1084

Applications

B3200 Viscosity Cup No.2

- The B3200 is primarily used for all mixed paints which have been reduced with solvent for application. Used by the automotive and similar industries.

B3300 Viscosity Cup No.3

- The B3300 is used for higher solids application where extra heavy films are desired.

B3500 Viscosity Cup No.5

- The B3500 is generally used for checking the viscosity of unthinned paints prior to reduction with solvent.

Operating Instructions

Before starting your test

- Select a Viscosity cup nearest to the expected viscosity range of the liquid being measured.
- Ensure the handle, the cup and the orifice are clean and free of debris.

Note: A dirty viscosity cup will impact the accuracy of the test.

- The liquid being tested must be homogeneous and must not contain any bubbles.
- Measure and record the temperature of the liquid and adjust the temperature to 77°F (25°C), if necessary.

Measuring Procedure

1. When the liquid test temperature has been reached, immerse the cup completely into the liquid and twist several times to dislodge any bubbles which may be clinging to the internal surface of the cup (Fig. 1, A).
2. Stir the liquid gently to ensure uniform temperature and density.
3. Leave the cup in the liquid for one to five minutes.
4. Lift the cup vertically and quickly out of the liquid (Fig. 1, B) and start the timer the moment the top of the cup breaks from the surface of the liquid.

Fig.1, A

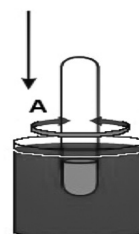
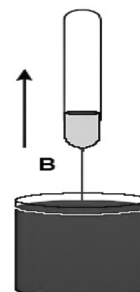


Fig.1, B



Note: During the flow time, hold the cup no more than 6" above the level of the liquid.

5. Stop the timer when the first break in the stream at the base of the cup occurs.
6. Repeat the test 2-3 times and take the average time of the tests to reduce errors.
7. Mark down the efflux time (Zahn seconds).
8. Convert the efflux time to centistokes (cSt).
(See the *Converting Zahn seconds to Centistokes (cSt)* section for further details).
9. Clean the cup with an appropriate solvent and dry with soft, lint-free tissue.

Note: Using abrasive cleaning materials such as a wire brush could damage the cup which will cause inaccurate test results.

Converting Zahn seconds to Centistokes (cSt)

To convert the efflux time (s) to kinematic viscosity/centistokes (cSt), use the following formula:

$$V = K (T - C)$$

Where:

V is Kinematic Viscosity (cSt)

T is Efflux time of your test (Zahn seconds)

K + C are constants (based on cup type)

Specific Formulas based on type of Viscosity Cup in series

- B3200 Cup No.2 $V = 3.5 (T-14)$ 25-80
- B3300 Cup No.3 $V = 11.7 (T-7.5)$ 20-75
- B3500 Cup No.5 $V = 23 (T-0)$ 20-75

Specifications

Model	B3200 Viscosity Cup No.2	B3300 Viscosity Cup No.3	B3500 Viscosity Cup No.5
Capacity	44 cc's	44 cc's	44 cc's
Inside Height	2.28" (58mm)	2.28" (58mm)	2.28" (58mm)
Inside Diameter	1.292" (32.8mm)	1.292" (32.8mm)	1.292" (32.8mm)
Orifice Size	0.11" (2.74mm)	0.15" (3.76mm)	0.21" (5.28mm)
Zahn Range	20-80	20-75	20-80
Centistoke Range	21-231	146-848	460-1840
Total Weight	0.15 lbs (2.45oz)	0.15 lbs (2.45oz)	0.15 lbs (2.45oz)