

Shell Cup Information Package

Introduction



Shell Cup capacity is 23 c.c.

The Shell Cup is a simple, reliable device for measuring the viscosity of a wide range of fluids. Originally developed for use with printing inks, it has found widespread applications as diverse as fuel oil and industrial finishes — for calibrating other viscosity sensors as well as for primary measurements.

The cup was developed by Shell Development Company and is marketed by Norcross Corporation. It is available in eight different sizes - see table below and Conversion Tables 8.2.1 and 8.2.2.

How to Measure Viscosity with The Shell Cup?

1. Submerge the cup in the fluid for approximately 30 seconds to allow the cup to come to sample temperature. The sample must be representative of the actual material to be tested, i.e. thoroughly stirred and at the normal operating temperature.
2. Lift the cup vertically out of the fluid, starting the stop-watch as the cup breaks the surface.
3. Record the time required for the cup to empty, stopping the watch when the stream breaks.
4. Read the viscosity from the appropriate conversion charts or calibration drawings.

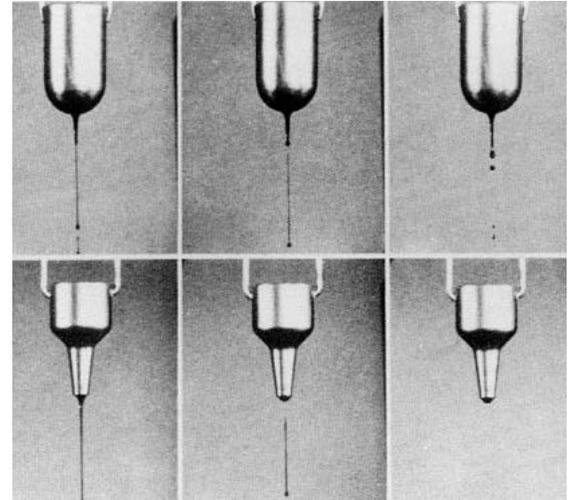


Figure 1

Difference between a Zahn Cup and a Shell Cup:

High speed unretouched photographs (Figure 1) compare end of viscosity tests with Zahn Cup (top) and Shell Cup (bottom), and show clean break, no dribbling with Shell Cup.

| Part # | Size | Viscosity Range (Centistokes)* | Calibration Drawing |
|--------|----------------|--------------------------------|---------------------|
| 05310 | Shell Cup #1 | 1-10 | A-2481-TAW |
| 05320 | Shell Cups #2 | 7.5-40 | A-2482-TAW |
| 05325 | Shell Cup #2.5 | 15-50 | A-3225-TAW |
| 05330 | Shell Cup #3 | 20-70 | A-2483-TAW |
| 05335 | Shell Cup #3.5 | 35-125 | A-2666-TAW |
| 05340 | Shell Cup #4 | 50-240 | A-2484-TAW |
| 05350 | Shell Cup #5 | 100-540 | A-2485-TAW |
| 05360 | Shell Cup #6 | 200-1300 | A-2486-TAW |

* Other cups available within range 0.3 cps - 7,000 cps