

## **Zahn Cup ASTM D 4212 #3**

**BGD 126-3**

### **Product Description**

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BGD 126-series Zahn Cups can be used to quickly measure the viscosity of liquids such as paints, inks and oils. They are produced according to ASTM D 816, ASTM D 1084, and ASTM D 4212. The Stainless Steel Cups are molded precisely and the orifices are precision drilled using high-speed CNC drilling.

Each cup has a 12-inch loop handle to allow the cup to be dipped by hand into a liquid container. At the center of this handle is a finger-ring for holding the cup in a vertical position during use. Their orifice diameters are set at the factory for appropriate results with applicable NIST traceable Newtonian oils.



### **Standards**

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- ASTM D 4212
- ASTM D 816
- ASTM D 1084

### **Technical Specification**

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- Volume of Cup: 44 ml
- Length of Handle: 40 ±0.1 mm
- Height of Cup: 58 ±0.1 mm
- Measurement of Temperature: 25°C ±1.0 °C
- Material: Stainless Steel
- Calibration certificate
- Not included: Precision stopwatch

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## Main Technical Parameters

Details/Zahn Cup	Zahn Cup #1	Zahn Cup #2	<b>Zahn Cup #3</b>	Zahn Cup #4	Zahn Cup #5
Orifice mm/inches)	1.98/0.08	2.74/0.11	<b>3.76/0.15</b>	4.27/0.17	5.28/0.21
Zahn Range sec	33.5-80	20-80	<b>20-75</b>	20-80	20-80
Centistokes Range	5-56	21-231	<b>146-848</b>	222-1110	460-1840
Applications	Very low viscosity	Low Viscosity	<b>Medium Viscosity</b>	High Viscosity	Very High Viscosity
Ordering Information	BGD 126/1	BGD 126/2	<b>BGD 126/3</b>	BGD 126/4	BGD 126/5

Viscosity measurement can be carried out by filling up the volume of Zahn Cup with the required liquid and then placing an index finger over the orifice to stop any flow out of the liquid. A ring at the Zahn Cup handle allows the cup to be hanged perpendicularly( still with the finger stopping any liquid flow out). Prepare a Digital stopwatch and set zero. Immediately start the stopwatch when the finger is released. As soon as there is a first "break" of the flow, stop the stopwatch. The second shown is the time of the liquid flow, which is also the flow viscosity of that liquid.

Each Zahn cup has its own coefficient "K". which is marked on the cup body.

Fact Viscosity = Testing viscosity × K

The results should be reported in Zahn-seconds at a specified temperature for particular cup. To convert Zahn-Seconds to centi-stokes, please refer to ASTM D 4212, D 816, D 1084.

Centistokes x Density = Centipoise

Remark: The orifice diameter of the Zahn cup may differ slightly from the standard requirements due to some uncontrollable factors during the manufacturing process. But we ensure that the flow conforms to the standards.

## Disclaimer

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