Pressure Density Cup 100ml

BGD 297

Product Description

The BGD 297 Pressure Density Cup is designed to measure the density of liquid samples with minimal error. Some paints tend to pick up significant quantities of air during the manufacturing process. This instrument operates on the principle of compressing the paint to such an extent that the included air bubbles are reduced to a negligible volume. It can be used with materials containing up to 10% by volume of included air and is capable of producing reproducible results to better than ±0.5%.

The instrument consists of a hollow cylinder with a plunger at one end and a pressure release cap at the other. Pressure can be applied to the sample of paint by advancing the plunger using the screw provided. Excess paint is forced out through the pressure release cap, which is set at a value of 150 p.s.i. The instrument is designed such that when the plunger is fully screwed in, the volume of paint enclosed is exactly 100 ml.

Standards

- ISO 2811-4
- BS 3900 A22

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Technical Specification

To use the cup, remove the pressure release cap and withdraw the plunger to its full extent to give the cup its maximum capacity for filling. Hold the cup vertically with the open end facing up, and pour the paint to be tested in until the cup is nearly full. Then, close the cup by replacing the pressure release cap.

The paint is now compressed by advancing the plunger. When the pressure in the cup reaches 150 p.s.i., paint is forced out between the cup and the pressure release cap. Once the plunger has been advanced to its full extent, the paint in the cup is at a pressure of 150 p.s.i., and the volume is equivalent to 100 ml (the volume of 100 grams of water at 16.7°C). If the temperature is different from 16.7°C, a small error may occur due to the thermal expansion of the cup, though this can be regarded as negligible if the temperature is between 12°C and 20°C. Excess paint is washed away from the top of the cup, and the entire instrument is dried.

The weight of the remaining paint in the cup is determined by weighing the cup and its contents and subtracting the tare weight of the cup.

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Main Technical Parameters

- Weight (Pressure density cup): 1,200 g
- Material: Stainless steel
- Compression: 10bar Volume 100ml
- Accuracy: Valve: ±1 bar; Volume: ±1 ml
- Calibration certificate

Disclaimer