



DENSITY GRADIENT COLUMN APPARATUS

QualiDG-1505

Density Gradient Column Apparatus

QualiDG-1505

The QualiDG-1505 is a precision instrument **designed for highly accurate density determination** of solid plastics and resin-based materials. Ideal for quality control and material evaluation, it enables rapid detection of slight density differences in similar substances, including natural and synthetic fibers.

Using a linear gradient formed by two fully miscible liquids inside a glass column, the system suspends a calibrated glass float at the exact point where its density matches that of the surrounding solution—ensuring reliable and reproducible results.

Key Applications:

- Density analysis of high molecular weight compounds
- Testing natural and synthetic fibers
- Evaluation of resins and polymer materials
- Quality control through precise density comparison



FEATURES/ADVANTAGES

Precision Temperature Control

High-accuracy microcontroller with integrated heating/cooling maintains stable bath temperature within $\pm 0.1^{\circ}\text{C}$, ensuring consistent results.

Low-Vibration Stirring System

External drive with internal spray stirring ensures uniform mixing while minimizing vibration for reliable gradient formation.

Durable, Transparent Bath Chamber

Made from high-clarity resin for excellent insulation, visibility, and vibration resistance.

Superior to Traditional Methods

Offers greater accuracy, ease of use, and a broader measurement range than immersion or float-sink techniques.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	VALUE
Model	QualiDG-1505
Measurement Range	0.80g to 2.70g/cm ³
Accuracy	0.0001 g/cm ³
Density Gradient Tube Dimensions	ID 50mm, length 900mm
Graduation Range	0-850mm, resolution: 1mm
Number of Test Stations	3 (or more)
Temperature Range	20°C to 30°C
Temperature Accuracy	$\pm 0.05^{\circ}\text{C}$
Standard Glass Floats	0.80g to 2.70g/cm ³ accuracy 0.0001 g/cm ³



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Connect with us

Contact our **QualiTeam** today to find out how we can help your organization **select the most suitable testing solution** for your application, requirements, and budget.

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