

Advanced Powder Fixture PRF-930

Data Sheet

For measurement of powders and granulated materials

Acrylic frame fixture with opposing power and concentric ring measurement plates for resistance measurement of small volumes of powder and granulated materials. Correction Factor (CF) is used to convert bulk resistance measurement to volume resistivity in ohm-cm.



Specifications for the PRF-930 Advanced Powder Fixture

Upper Resistance Limit	Nominal 1.0×10^{14} ohms $\pm 20\%$ @ 500 Volts, 71°F (21.7°C), 18% Rh, Clean, empty fixture. Note that most resistance measurements are made at 100 volts and below.
Material Capacity	Approximately 1.0 Tablespoon (US) (15 cm ³)
Correction Factor (CF) to Ohm-cm	<p>Based on: $\rho = R \frac{A}{d}$</p> <p>Where,</p> <p>ρ = Volume Resistivity in ohm-cm R = Resistance obtained from the material measurement in ohms A = Area of the fixture's center plate in cm² d = Distance in cm between the measurement and power plates.</p> <p>and,</p> <p>$\rho = R (CF)$</p> <p>Where,</p> <p>ρ = Volume Resistivity in ohm-cm R = Resistance obtained from the material measurement in ohms CF = Correction Factor (Area [A] of the fixture's center plate in cm² divided by Distance [d] in cm between the measurement and power plates.</p> <p>Typical CF Range 4.6 cm to 4.9 cm, Typical 4.75 cm</p>
Approximate Fixture Dimensions	<p>Note: Dimensions vary slightly from fixture to fixture as they are hand polished and assembled. Temperature and humidity will affect fixture dimensions. Approximate dimensions as follows:</p> <p>W 2.36 in (60 mm) x D 1.25 in (32 mm) x H 2.25 in (57 mm)</p>
Approximate Fixture Weight	12.35 oz (250 gm)