

What Is Used To Measure Surface Resistivity?

Here is the name of 1 meter you can use:

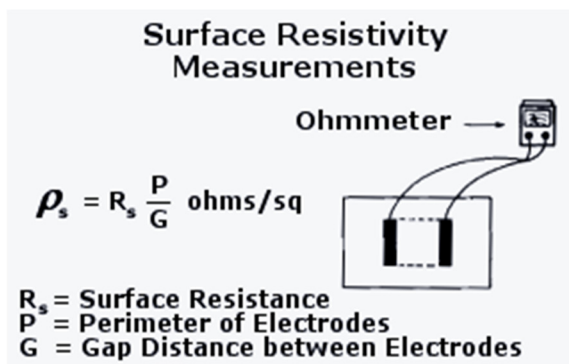
Monroe Electronics

Resistivity Meter Model Number 291

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Surface Resistivity



For thermoplastic materials intended to dissipate electrostatic charges, surface resistivity is the most common measurement of a material's ability to do so.

A widely accepted surface resistivity test method is ASTM D257. It consists of measuring the resistance (via an ohm meter) between two electrodes applied under load to the surface being tested. Electrodes are used rather than point probes because of the heterogeneous makeup of compounded thermoplastics. Simply touching the surface with a point contact may not give readings consistent with the overall part (readings of this type are often insulative even when the part is actually conductive).

It is also important to maintain good contact between the sample and electrodes, which can require considerable pressure. The resistance reading is then converted to resistivity to account for the dimensions of the electrodes which can vary depending on the size and shape of the test samples. Surface resistivity is equal to resistance times the perimeter of the electrodes divided by the gap distance, yielding ohms/square.