



RESISTANCE MEASUREMENTS ACCORDING TO STANDARD

ATEX plastic materials (Directive 94/9/EG)

Correct handling of the resistance measurement

In order to prevent electrostatic discharge, there are a number of effective countermeasures that prevent causing cost-intensive consequences on electronic components and assemblies or dust explosions.

Dissipative plastics from Murdotec ensure that working environments are equipped safely by

1. avoiding charges or minimize them by discharging
2. enabling an even discharge.

However, the customer often does not recognize upon delivery whether the material supplied by Murdotec is conductive, as it does not always differ from one another from the outside (such as Murdotec® 1000 white ESD compared to Murdotec® 1000 natural).

At this point, it is now important to carry out a resistance measurement in accordance with the standard at goods receipt or later in production. This requires suitable measuring devices, equipped with resistance probes, which are measuring the surface. The correct test voltage must be set.

If the customer uses voltmeter with measuring tips instead, the wrong result „isolating“ can be displayed misleadingly, because only the point was measured.

To explain the pictures on the back: The two correct measurements shown below were performed on the same sample and reflect a slight difference in the measurement results.

If none of the suitable measuring instruments listed here is available to you, Murdotec will, of course, also issue a verification certificate based on an order-related measurement at your request.

HOW DO I MEASURE CORRECTLY?



Correct measurement I (resistance meter)

Voltage > 250 V; resistance meter

Result: 6 MΩ → **conductive**

OUR ATEX PLASTIC MATERIALS

Murdotec® 1000 white ESD

Murdotec® 1000 E

Murdotec® 2000 E

Murdotec® 1000 light grey AST

Murdotec® 2000 MCE

Murdotec® 2000 MCWE

Murdotec® 500 black AST

Murdotec® 1000 black AST

Murdotec® 2000 black AST

Dialen® MR black AST



Correct measurement II (with measuring probes)

Voltage > 250 V; resistance meter

Result: 6 MΩ → **conductive**



Wrong measurement (voltmeter with measuring tips)

Voltage > 250 V; voltmeter with measuring tips

Result: 1.97 GΩ → **isolating**