

ANTISTATIC FINISH – PART III

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Evaluation of Antistatic finished products

There are two common methods for evaluating the antistatic function of the fabric:

1. Cling time measurement (**AATCC 115**)
2. Surface Electrical resistance measurement or Resistivity of Fabrics (**AATCC 76, BS 6524, EN 1149-1, DIN 54345-1**)



Cling Time measurement – This method is used to determine the cling properties of lightweight apparel fabrics, such as linings. It is based on a simulation to measure the relative clinging time of a charged fabric to an inclined metal plate. This metal exhibits a similar instantaneous charge induction as in the human body, resulting in the garment clinging to our body when they are in contact.

Limit value: Cling Time \leq 100 s



Fig 1.1 Clinging of garment due to static charge



Surface Electrical Resistance- Direct Measurement of Surface Electrical Resistance of textiles is a well-known test method to evaluate the anti-static performance of the textiles. This method is designed to measure the surface electrical resistance or resistivity. The tendency of a fabric to accumulate electrical charges depends upon its electrical resistance properties.

Higher the surface resistance or resistivity, more charge will be accumulated on the fabric surface.

EN 1149-1 and DIN 54345-1 require the tests to be conducted at specified low relative humidity conditions.

Limit value: 2.5×10^{11} ohm

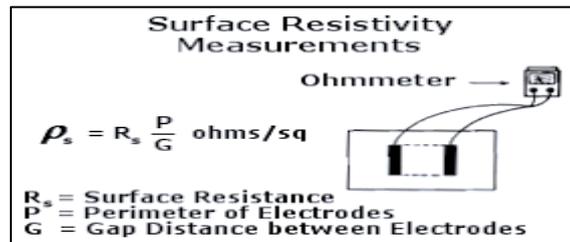


Fig 1.2 Surface Resistivity Measurement

To be continued...

Wishing you a great week ahead!

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