**Silcosperse™ EC Electrically Conductive Additive Dispersions**

Silcosperse™ EC Electrically Conductive additive dispersions provide varying levels of electrical conductivity to silicone material. These functional additives allow silicone, which is normally an electrical insulator, to become an anti-static, static dissipative or fully conductive material, making it suitable for a variety of uses.

The Silcosperse EC series is based on varying technologies, ranging from single wall carbon nano tubes (SWCNT) and multi-wall carbon nano tubes (MWCNT), to conventional grades of conductive carbon black (CB) in higher dosing percentages. Lower dosing percentages in SWCNT and MWCNT technologies allow a wider processing and formulation window than with available conventional products. CB is also available as a European food regulation compliant grade.

![Surface Resistivity Graph](image)

**Surface Resistivity**

- **CB HCR**
- **SWCNT HCR**
- **SWCNT LSR**
- **MWCNT HCR**

The graph shows the resistivity/Ohm across different dosing percentages, with resistivity levels ranging from insulative, antistatic, dissipative to conductive.
KEY CHARACTERISTICS

• Delivers a range of properties from anti-static through conductive
• Achieves greater conductivity levels with lower loadings in single- and multi-wall nanotubes
• Anti-static performance available at lower doses
• Dark color options, such as browns, blues or reds, available at lower dosages in single-wall nanotubes
• Suitable for peroxide- or platinum-cured silicone formulations

MARKETS AND APPLICATIONS

Silcosperse EC Electrically Conductive additive dispersions are found in a variety of markets, including transportation, energy, electrical & electronics, and the films & coatings industry. Some of the applications include:

• Potting applications
• LED lighting components
• Resistors
• Printable electronics
• Electrical components
• Conductive films
• Flexible electronics
• Insulator depolarization