



THE CARBON NANOTUBE SPECIALIST

NANO-ENGINEER YOUR FUTURE

PLASTICYL

Ref: PLASTICYL™ PBT1501 – 05 march 2009 – V02

PLASTICYL™ PBT1501 / Product Data Sheet

General information

Description

PLASTICYL™ is a family of Multi-Wall Carbon Nanotubes thermoplastic concentrate for applications requiring superior electrical conductivity and electrostatic discharge (ESD) property. Due to its high flow formulation PLASTICYL™ PC1501 is ideal for standard injection molding and extrusion process.

Applications

- ESD (Electrostatic Discharge) and electrically conductive parts
- E&E, Automotive, Industrials
- Injection molding, extrusion

Benefits

- Electrical conductivity at low loading
- Retention of key mechanical properties
- Easier Processing

Main characteristics

| CARBON NANOTUBES LOADING (%WT) | REAL DENSITY (G/L) ISO 1183 | MFI (G/10 MIN) NON STANDARD TEST : 250 °C ; 20 KG ; 4 MM | MELTING POINT (°C) ISO 11357-1,-3 |
|--------------------------------|--------------------------------|--|--------------------------------------|
| 15 ± 1,0 | 1300 | 0,88 | 227 |

Typical Performance data after dilution

| | STANDARD | UNITS | NEAT POLY-CARBONATE | DILUTION TO 3 %WT OF CNT | DILUTION TO 5 %WT OF CNT |
|---|---------------|----------|---------------------|--------------------------|--------------------------|
| Melt flow index (250 °C ; 2,160kg* ; 5 kg**) | ISO 1133:1997 | g/10 min | - | 3.76* | 5,51** |

NB: Compounds were processed using a L/D ratio 48 twin-screw extruder using propriety conditions.

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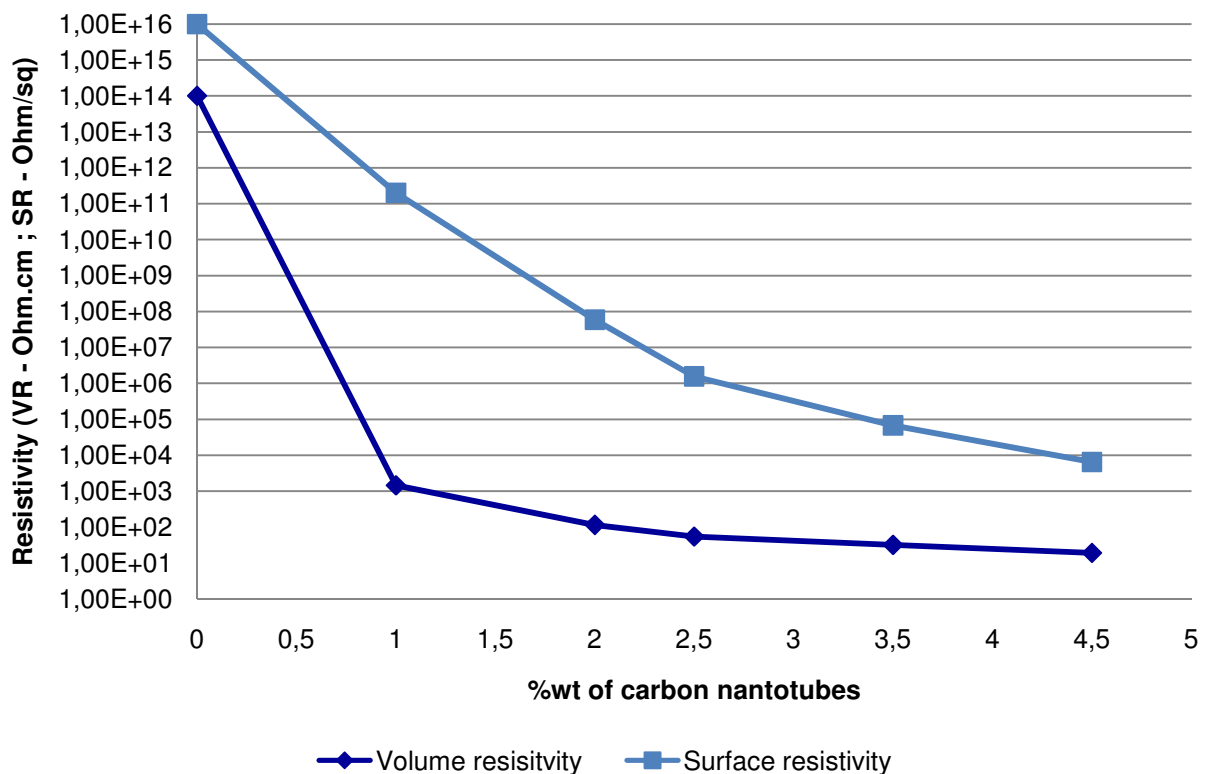
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Percolation Curves for volume and surface resistivity



NB: Electrical resistivity measurement in accordance to CTM E043 and CTM E402 (Cabot Testing Method), on standard injection molded IZOD specimens

Important

This information is intended to be used only as a guideline for designers and users of modified thermoplastics. All information is believed to be accurate but is given without acceptance of liability. Users should make their own assessment of the suitability of the product for the purposes required. Properties may be materially affected by extrusion and molding parameters as well as by the shape and size of the part. No information supplied by Nanocyl constitutes a warranty regarding the product performance.

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