

PLASTICYL™

CNT thermoplastic concentrates

PLASTICYL™ PVC1001

PVC – carbon nanotubes masterbatch

General Information

Description

PLASTICYL™ is a family of multiwall carbon nanotubes (MWNTs) thermoplastic concentrates for applications requiring superior electrical conductivity and electrostatic discharge (ESD) properties.

PLASTICYL™ PVC1001 is a conductive masterbatch based on plastified PVC (polyvinyl chloride) with 10wt% NC7000.

Key Applications

- Masterbatch for the production of PVC antistatic compounds (rigid or soft, depending on the dilution resin).
- Suitable for extrusion.

Benefits

- Excellent electrical conductivity at low loading
- Retention of key mechanical properties
- Ease of processing

Technical Data

Main Characteristics

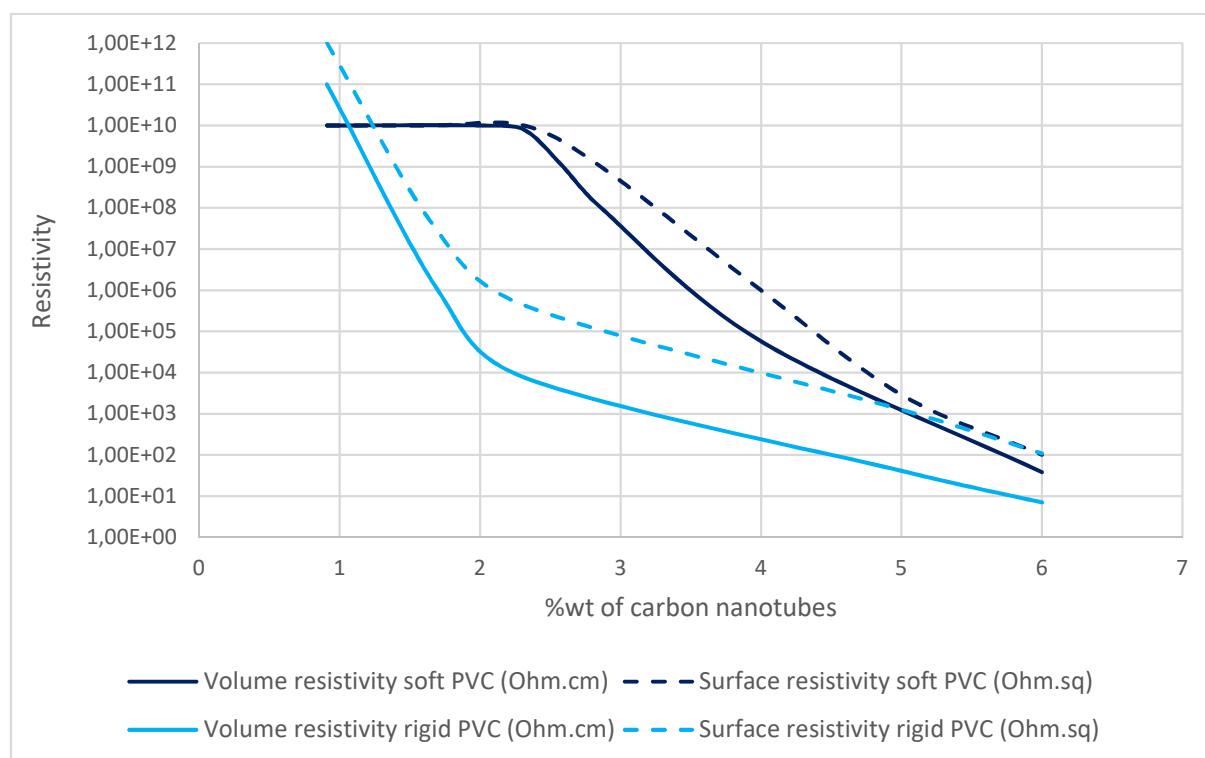
CARBON NANOTUBES LOADING (% _{WT})	Volume resistivity ¹ (ohm.cm) compression-molded samples	Surface resistivity ¹ (ohm/sq) compression-molded samples	HARDNESS Sh A
10 ± 1,0	5 ± 1	25 ± 5	24 ± 2

¹Electrical resistivity measurement in accordance with Nanocyl standard method based on compression-molded specimens.

Precautions of use

The maximum working temperature is 200°C (limited time).

Percolation Curves for Volume and Surface Resistivity



Electrical resistivity measurement in accordance to Nanocyl standard method, on compression molded specimens (higher CNT loadings) and on calendered specimens (lower CNT loadings).

In order to get well-dispersed CNT aggregates, Nanocyl recommends the use of polymers with a high Melt Flow Index (MFI).

Commercial/Safety Information

Packaging

PLASTICYL™ PVC1001 (pellets) is available in the following packaging:

- 20 kg sealed white plastic bags,
- 600 kg cardboard octabins.

Minimum Order Quantity

Nanocyl's minimum order quantity for PLASTICYL™ PVC1001 is 20 kg.

Custom Grades

Besides the commercial grades, Nanocyl is able to toll-compound other types of PVC masterbatches/compounds to meet its clients' needs.

Health and Safety

A Material Safety Data Sheets (MSDS) is available to provide both workers and emergency personnel with the proper procedures for handling or working with the PLASTICYL™ PVC1001. This MSDS includes information such as physical data (form and color, melting point, etc.), handling and storage recommendations, first aid measures and ecological information. The Safety Data Sheet is provided with any order and should be observed.

Disclaimer

The information contained in this TDS is believed to be accurate to the best of Nanocyl's knowledge and belief at the time of the TDS publication. The information is intended to be used as a guideline and for informational purpose only. Consequently Nanocyl DOES NOT WARRANT that the information or the related products are fit for any particular purpose or use by User and it is for User to check for itself the fitness of the information and/or the related products, including regarding the non-infringement of third parties intellectual property right whether related products are used alone or in combination with other products. Nanocyl shall NOT BE LIABLE, whether contractually or in tort, for damages caused through the use or the reliance on this information and/or the related products.