

PC MASTERBATCH

TECHNICAL DATA SHEET

Description:

Graphistrength® C M5-30 is a black PC master-batch that contains perfectly dispersed MWNT at a concentration of 30% by weight.

Graphistrength® C M5-30 is suited to the production of high performance PC compounds intended for use in electrostatic discharge (ESD) protection.

Key features:

Graphistrength® C M5-30 is provided in pellet form with the following key characteristics.

Property	Method	Unit	Typical value ⁽¹⁾
MWNT content		wt%	30.0 ⁽²⁾
Moisture content	Karl-Fisher	wt%	< 0.10

⁽¹⁾ Data not intended for specification purposes

⁽²⁾ Graphistrength® C M5-30 contains Graphistrength® MWNT with purity > 90 %

Benefits and applications:

Graphistrength® C M5-30 is generally diluted in PC. Typical final MWNT loadings in the final compounds are in the range 1 to 5 wt% depending on the host matrix characteristics, the targeted performances, processing methods and conditions.

The typical electrical resistivity that can be achieved is in the range $10^1 - 10^8$ ohm.cm. The ESD properties obtained with Graphistrength® C M5-30 are outstandingly consistent and uniform.

Thanks to their low loading, and very small size, Graphistrength® MWNT offer several additional advantages: smooth surface aspect, low increase in density and, high preservation of the neat matrix's ductility and mechanical properties. With low particulate generation, Graphistrength® MWNT are also ideal fillers for applications where cleanliness is key.

Graphistrength® C M5-30 is particularly suited to industrial and automotive applications.

Dilution and processing:

The dilution of Graphistrength® C M5-30 into high quality compounds can be achieved with standard equipments used in thermoplastics compounding such as twin-screw extruders. In some cases, optimizing process conditions may be necessary to get well-dispersed compounds. More information is provided in our *Dilution Guide of Graphistrength® Thermoplastic Masterbatches*.

It is recommended to process Graphistrength® C M5-30 within the temperature range 270 to 300 °C .

The compounds can be processed on most equipments (sheet extrusion/thermoforming, injection molding)

Packaging and Storage:

Graphistrength® C M5-30 is provided in lined bags of 5 kg or 25 kg net. The product is indefinitely stable in its unopened original packaging when stored at normal temperatures.

Graphistrength® C M5-30 may absorb water if exposed for long periods of time to the atmosphere. In this case, the pellets must be dried at 120°C preferably under vacuum for 3/5 hours before using.

Safety and Handling:

Graphistrength® C M5-30 is provided in pellet form where MWNT are strongly embedded.

Graphistrength® C M5-30 doesn't present any specific health risk when using in thermoplastic processing.

Consult the product SDS or MSDS for additional information on properties, hazards and handling.

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