

# GRAPHISTRENGTH<sup>®</sup> C M6-20

## PA6 MASTERBATCH

### TECHNICAL DATA SHEET

#### Description:

Graphistrength<sup>®</sup> C M6-20 is a black PA6 masterbatch that contains perfectly dispersed MWNT at a concentration of 20% by weight.

Graphistrength<sup>®</sup> C M6-20 is suited to the production of high performance PA6 compounds intended for use in electrostatic discharge (ESD) protection.

#### Key features:

Graphistrength<sup>®</sup> C M6-20 is provided in pellet form with the following key characteristics.

Property	Method	Unit	Typical value <sup>(1)</sup>
MWNT content	TGA	wt%	20.0 <sup>(2)</sup>
Moisture content	Karl-Fisher	wt%	0.10-0.15

<sup>(1)</sup> Data not intended for specification purposes

<sup>(2)</sup> Graphistrength<sup>®</sup> C M6-20 contains Graphistrength<sup>®</sup> C100 MWNT with purity > 90 %

#### Benefits and applications:

Graphistrength<sup>®</sup> C M6-20 is generally diluted in PA6. 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<sup>®</sup> C M6-20 are outstandingly consistent and uniform.

Thanks to their low loading, and very small size, Graphistrength<sup>®</sup> 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<sup>®</sup> MWNT are also ideal fillers for applications where cleanliness is key.

Graphistrength<sup>®</sup> C M6-20 is particularly suited to industrial and automotive applications.

#### Dilution and processing:

The dilution of Graphistrength<sup>®</sup> C M6-20 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<sup>®</sup> Thermoplastic Masterbatches*.

It is recommended to process Graphistrength<sup>®</sup> C M6-20 and compounds based on Graphistrength<sup>®</sup> C M6-20 within the temperature range 260 to 300 °C.

The compounds can be processed on most equipments (extrusion, blow molding, injection molding)

## Packaging and Storage:

Graphistrength® C M6-20 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 M6-20 may absorb water if exposed for long periods of time to the atmosphere. In this case, the pellets must be dried at 80 °C preferably under vacuum for 12 to 24 hours before using.

## Safety and Handling:

Graphistrength® C M6-20 is provided in pellet form where MWNT are strongly embedded.

Graphistrength® C M6-20 doesn't present any specific health risk when using in thermoplastic processing.

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

## Contacts:

- [www.graphistrength.com](http://www.graphistrength.com)

- **Europe**

Arkema France –

Tel.: + 33 (0)5 59 92 66 07

- **Japan**

Arkema K.K. –

Tel.: + 81 (0)75 326 7520

- **North America**

Arkema Inc. –

Tel.: + 1 610 878 6992

The information contained in this document is based on trials carried out by our Research Centers and data selected from the literature, but shall in no event be held to constitute or imply any warranty, undertaking, expressed or implied commitment from our part. Our formal specifications define the limit of our commitment. No liability whatsoever can be accepted by Arkema with regard to the handling, processing, or use of the product or products concerned - which must in all cases be employed in accordance with all relevant laws and/or regulations in force in the country or countries concerned.

The statements, technical information, and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, ARKEMA expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials, or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement. See MSDS for Health & Safety Considerations.

