

TECHNICAL DATA SHEET
NYLON [PA6] GRAPHENE NANOCOMPOSITE [5%]

Doc Ref:TDSNCG06



office@graph-on.com

www.graph-on.com

INGREDIENTS

Nylon 6 RESIN [PA6][CAS Number 25038-54-4]:95%

Graphene [CAS Number 7782-42-5]: 5%

This product is a modified Nylon PA6 by Graphene called advanced nanocomposite of Nylon and especially used as filler additive. This Master batch of PA6 is recommended for Injection Moulding processes and recommended as an additive to improve the properties of general grade of NYLON based products.

Application Guide

Mix 200 Gram of master batch in 800 kilogram of Neat PA6 to achieve 1%wt/v Graphene in final formulation. Else user can modify mixing ratio for their optimization study.

PROPERTY	ASTM Test Method	Unit	Typical value
Melt flow index, (230°C / 2.16kg)	D 1238	g/10 min	9

MB of Graphene based PA6 [5%] is designed to provide:

- An additive carrying Graphene Nanomaterials
- Low static charge build up and reduced dust pickup
- To reinforce the base matrix PA6 polymer
- Expected improvement by ~30 % in terms of:-
- Tensile strength at yield
- Elongation at yield
- Flexural modulus
- Heat deflection Temp

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Advantages:

- ◆ Reinforcement;
- ◆ Anti-microbial;
- ◆ Anti-static;
- ◆ Yarn/ Fabric;
- ◆ Innovation.

PHYSICAL PROPERTIES PARAMETERS

Appearance: Grains/plastic Pellets

Physical State: Solid

Colour : Dark Grey black

Odor : No

Density : 1.5. gr/cm³

Change In State[MP] : Tg=160-180°C, DSC according to
ASTM D 792

Viscosity : Not relevant

Solubility In Water : None

Ph Value : Not relevant

Flash Point : >355 dc ASTM D 1929

Autoignition Temp. : >420 dc ASTM D 1921

Flammability Limit : None

Explosion Limits : None

Evaporation Rate : Not relevant

Percent Volatiles : Not relevant

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Storage Recommendations:

Bags should be stored in dry / closed conditions at temperatures below 50°C and protected from UV / direct sunlight..

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APPLICATION AREA: Reinforcement & advanced products of NYLON products

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