



# Graphene GCR100

## MILLED EXFOLIATED FLAKE 10 layer Graphene

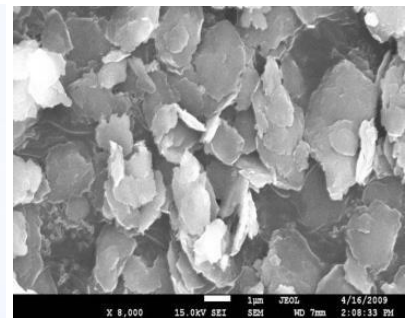
Graphene is stack of multi-layered graphene sheets having a platelet morphology. The graphene have a high aspect ratio (width to-thickness).

Graphene is the name given to a one-atomic-thick, two-dimensional (2D) layer of graphite with carbon atoms arranged in a six-numbered-ring plane.

Graphene is consisted of more than ten carbon layers, the thickness of graphene is ranging from 5-100 nm.

Graphene have high aspect ratio (width–to–thickness) in structure feature which leading to great advantages in forming the conducting network in a polymer matrix.

TYPICAL ANALYSIS	
Ash and Volatile	0.30%
Carbon	99.7%
Moisture	0.20%
Size D50 – 8 MICRONS	



### Bulk Powder Characteristics

Bulk Powder Characteristics			
Appearance	Bulk Density	Powder conductivity	Specific Surface area
A black and grey powder	0.15~0.2g/ml	~12000S/m	30-60m

### Graphene Properties

Graphene Properties						
Diameter (D50)	Thickness	Carbon content	True density	Thermal conductivity	Tensile Modulus	Young's Modulus
~5um	<15nm	>98wt%	~2.25g/cm <sup>3</sup>	~3000W/mK	~1000Gpa	~1060Gpa

### Applications

- The high performance composite nano-additives.
- To improve composites thermal conductivity and diffusion, anti-static electricity properties, tensile strength, stiffness, corrosion resistance and lubricant properties.

### Use methods

- Graphene is suggested to mix with the target polymer via the general plastics machines.
- Some kinds of performance graphene master batches are available.
- Amounts for modifications depend on actual uses.

### Package

- Graphene package: 20kg (44.1 lbs) or tailor-made for your specific need.