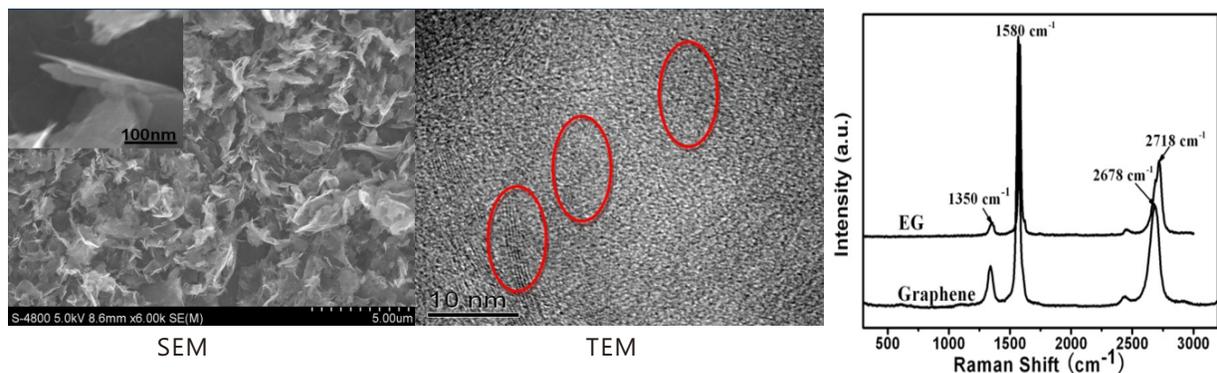
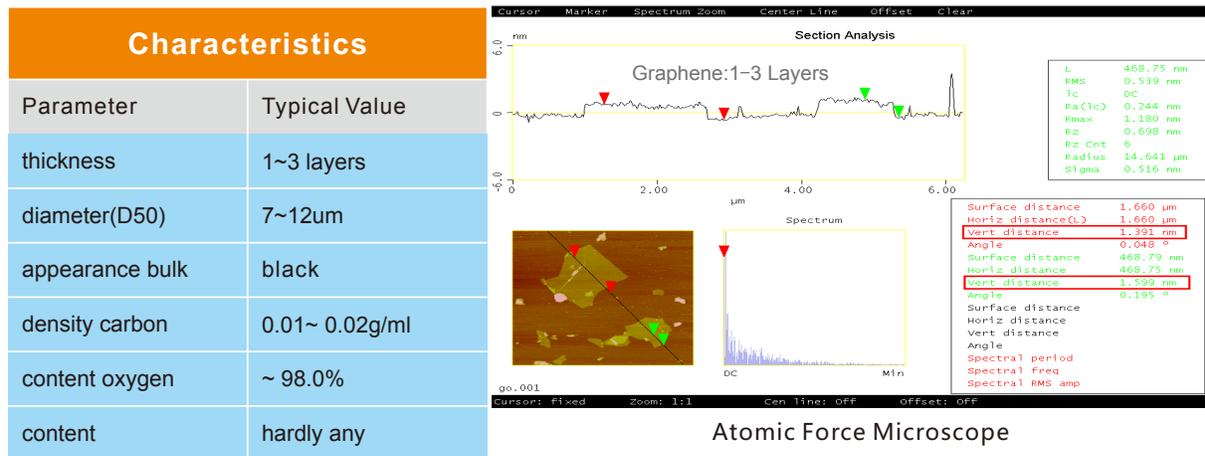


## BNG-G02 Graphene

BNG-G02 is a new generation of high-quality graphene product, consisting of larger numbers of single-layer and few-layer graphene sheets. Benefited from the new technology without oxidation and reduction treatment, this product keeps the original crystal structure of graphite, resulting in extraordinary electrical conductivity.



### Application

- paints, plastics, rubber, composites

### Usage

- To achieve uniform dispersion of nano-sized graphene in solvent or resin matrix, a suitable ultrasonic treatment or intense agitation is necessary.

## Graphene Powder - BNG-G02

### 1. Applications

- Water-based or oil-based paints, especially oil-based paints
- Plastic characteristics modifying, especially thermosetting resin
- Rubber characteristics modifying, suitable for less additive areas
- Other areas except lithium batteries

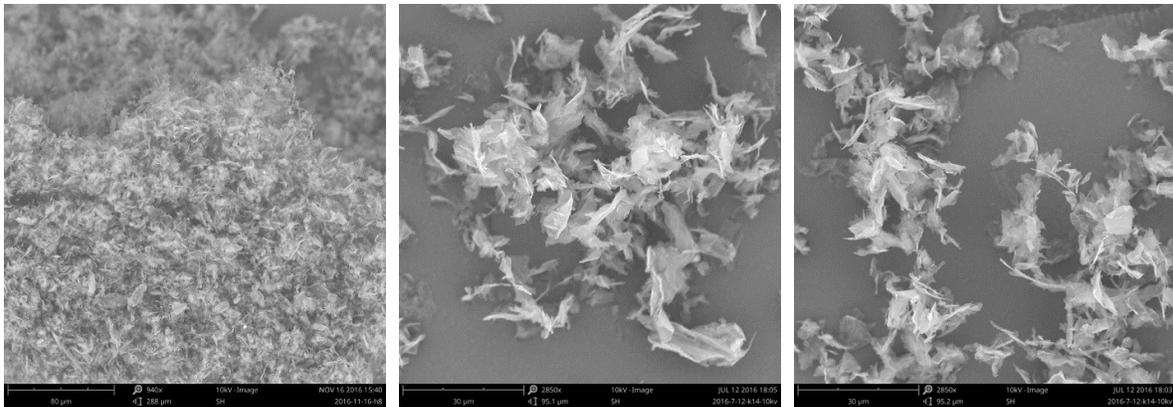
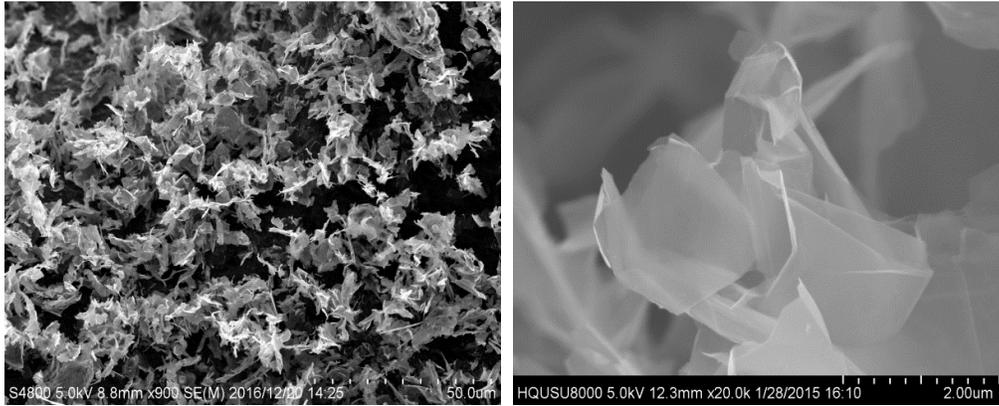


### 2. Specifications

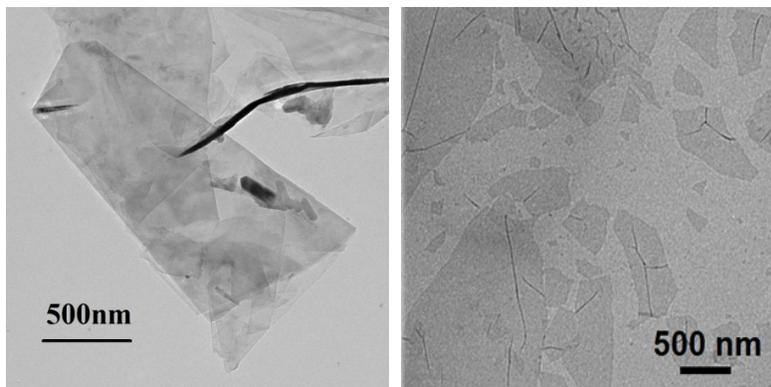
Item	Spec.	Item	Spec.
Appearance	Gray and black powder	Water content	≤2%
Stacking Density	0.01-0.02g/ml	Specific Surface Area	50-200m <sup>2</sup> /g
Particle Size D <sub>50</sub>	7-12um	Tablet Resistance	9.2mΩ·cm
Particle Size D <sub>90</sub>	11-15um	Hydrophilia	Hard to wet by water
Thickness	1-3 layes	Defects	Little defect, physical stripping
Single-layer Rate	>80%	Agglomeration	Some soft aggregates
Carbon Content	About 98%	Radius-thickness Ratio	Avr. 9500
Grafted Oxygen	Very rare		

### 3. Characterization Results

#### 3.1 SEM



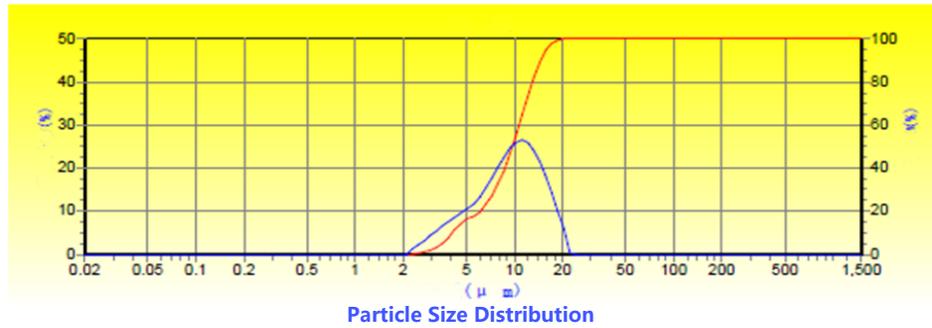
### 3.2 TEM



### 3.3 Laser Particle Size

**Particle Size Characteristics**

D(4,3)	9.53 μm	D50	9.63 μm	D(3,2)	7.73 μm	S.S.A.	0.78 sq. m/c. c.
D50	9.63 μm	D90	14.55 μm	D97	16.45 μm	D99	18.22 μm



(μm)	(%)	(%)	(μm)	(%)	(%)	(μm)	(%)	(%)
0.02			0.92	0.00	0.00	42.69	0.00	100.00
0.03	0.00	0.00	1.22	0.00	0.00	56.14	0.00	100.00
0.04	0.00	0.00	1.60	0.00	0.00	73.82	0.00	100.00
0.05	0.00	0.00	2.10	0.00	0.00	97.06	0.00	100.00
0.06	0.00	0.00	2.76	1.25	1.25	127.63	0.00	100.00
0.08	0.00	0.00	3.63	4.11	5.36	167.83	0.00	100.00
0.10	0.00	0.00	4.78	9.60	14.96	220.68	0.00	100.00
0.14	0.00	0.00	6.28	6.89	21.85	290.18	0.00	100.00
0.18	0.00	0.00	8.26	14.81	36.67	381.57	0.00	100.00
0.24	0.00	0.00	10.96	25.87	62.54	501.74	0.00	100.00
0.31	0.00	0.00	14.28	26.27	88.80	659.75	0.00	100.00
0.41	0.00	0.00	18.78	10.79	99.59	867.53	0.00	100.00
0.53	0.00	0.00	24.69	0.37	99.96	1140.74	0.00	100.00
0.70	0.00	0.00	32.47	0.04	100.00	1500.00	0.00	100.00

**3.4 Raman Spectrum**

