

Single-walled carbon nanotube

ZEONANO[®] SG101

ZEONANO[®] SG101 is the single-walled carbon nanotube manufactured with the "Super Growth method".

Features

1 Single-Walled

ZEONANO[®] SG101 is a single-walled carbon nanotube.

Benefit Great strength by unit weight

Application High-strength polymers

2 Great Surface Area

ZEONANO[®] SG101 has a greater specific surface area.

Benefit Storage of much electric charge

Application Electrode of power storage device

3 Long

ZEONANO[®] SG101 has an extremely high aspect ratio with a length of hundreds micrometers which is given by catalyst activation technology of Super Growth Method.

Benefit 1 Form self-supporting film without binder

Application 1 Electrode of power storage device

Benefit 2 Low percolation threshold

Application 2 Conductive polymer, Antistatic polymer, Conductive paint

4 High Purity

ZEONANO[®] SG101 contains very little residues of metal catalysts.

Benefit No reaction with electrolyte

Application Electrode of power storage device

Typical Properties

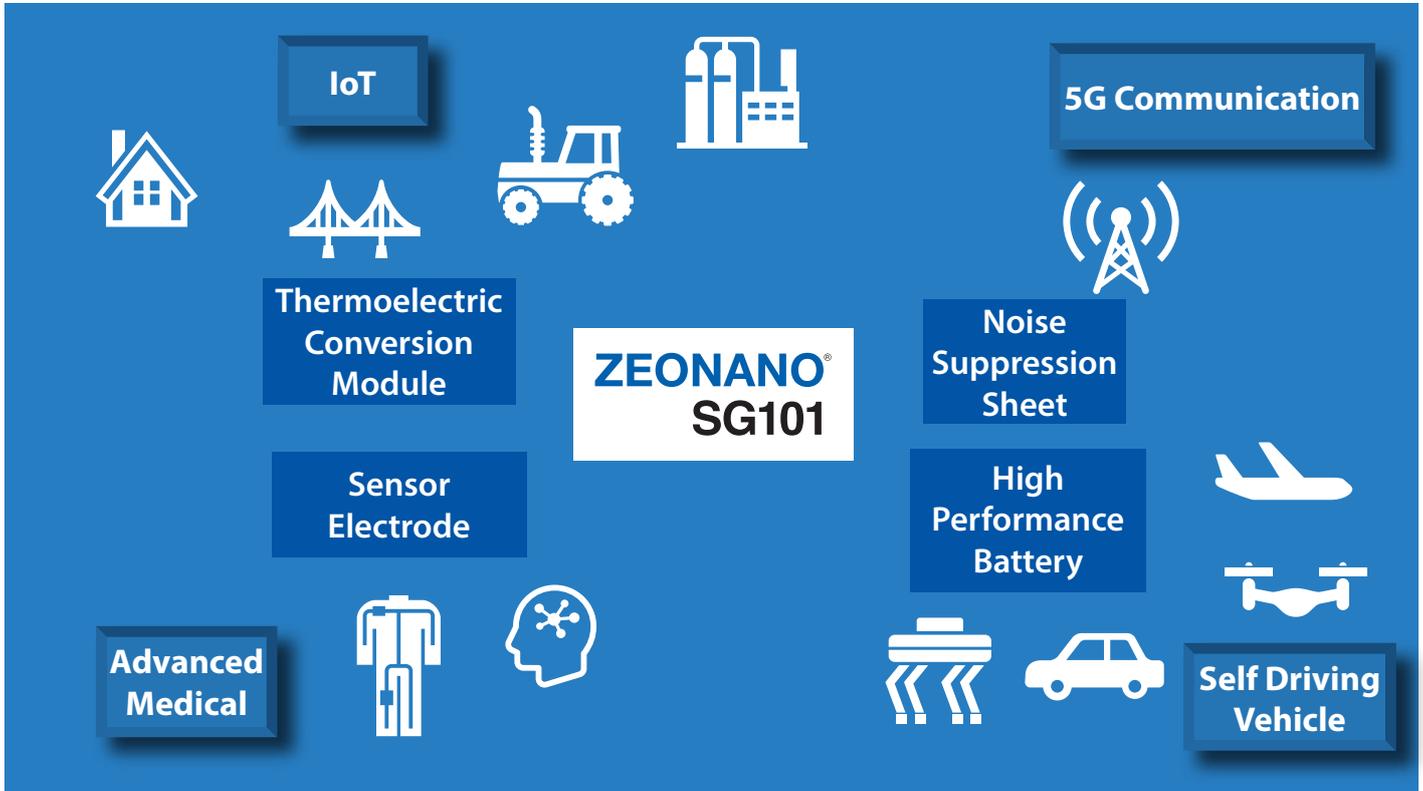
Appearance	Black Powder
Specific Surface Area	800m ² /g min
Length in Forest	100~600μm
Average Diameter	3~5nm
Impurity(including metals)	less than 1%
Carbon Purity	99% min

*The values shown above are typical, not guaranteed.



ZEONANO[®] SG101 changes our future bright !

ZEONANO[®] SG101 contributes to the technologies changing our future bright.



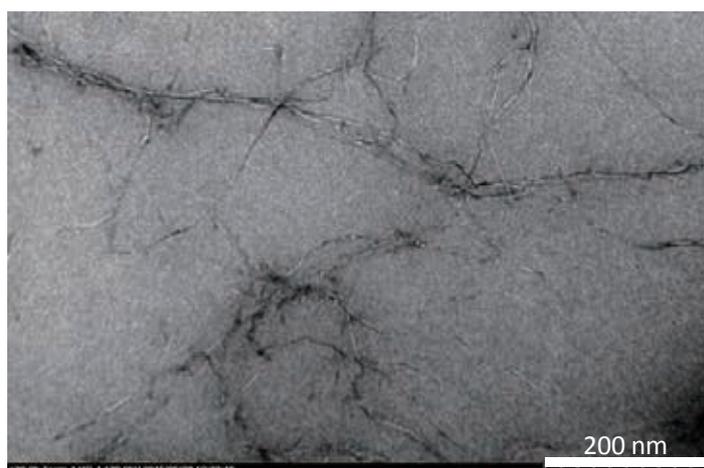
ZEONANO[®] SG101 is one of the best materials for high performance battery electrodes, noise suppression sheet, sensors, electrodes and thermoelectric conversion module.

ZEONANO[®] SG101 Dispersions

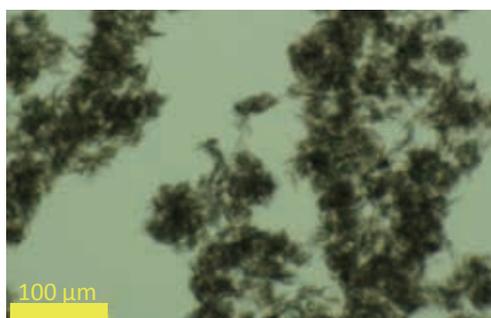
ZEONANO[®] SG101 is available as dispersion in water and organic solvents.

Solvent	CNT content (wt%)	Dispersant	Viscosity (mPa·s)
Water	0.2	●	2 - 7
Ethanol	0.3		330 - 380
N-Methyl-pyrrolidone (NMP)	0.3		1400 ~ 1800

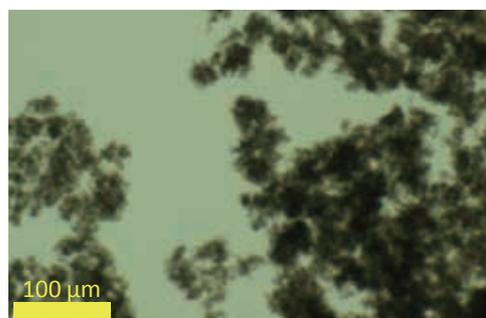
*Please contact us for concentrated dispersions and the other solvents.



0.2 wt% Water Dispersion
(TEM image)



0.3 wt% Ethanol
Dispersion



0.3 wt% NMP
Dispersion

(Microscope image)

Concentrated dispersions of ZEONANO[®] SG101

Concentrated dispersions are available.

Solvent	Conc. (wt%)	Dispersant	Dispersing method	Fluidity
Water	Max 2.0	Depending on the applications		
Organic solvent	Depending on the solvent			

- We can produce fluid water dispersion up to 2% carbon nanotube concentration.
- We design the dispersion method, dispersion degree, fluidity, etc. according to the application and solvent.