K-Nanos Series MWCNTs

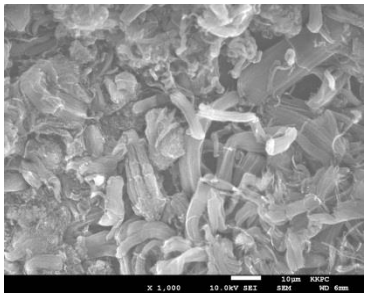
Properties and Applications

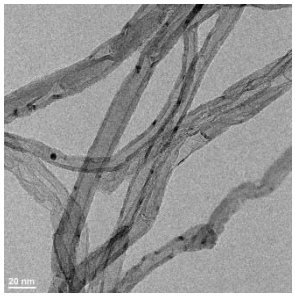
With their excellent dispersibility by well aligned bundle structure, Kumho Petrochemical Carbon Nanotubes(K-Nanos) enable easy polymer compounding without dispersant and have a good conductivity.

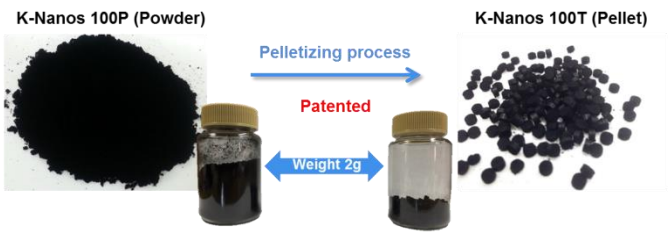
Applicable fields are very wide such as functional polymer composites, rubbers, ceramic composites, coating solutions, and so on that require properties such as antistatic(ESD), electromagnetic interference (EMI shielding), heat generation, heat dissipation, etc.

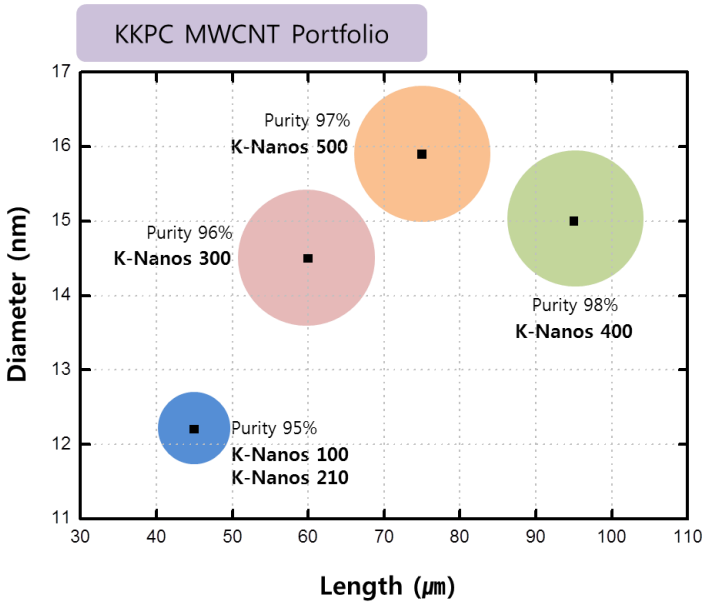
Kumho Petrochemical produce high-density pellet type MWCNTs without any additive, so this improves user's work environment and makes very easy to handle including storage, transport, weighing, etc.

Kumho Petrochemical can provide an optimal carbon nanotubes for each application with various MWCNTs grades. Also Kumho Petrochemical keep on researching for property enhancement and new grade development.









◆ Grades and Specifications

Property+	Unit	K-Nanos 100	K-Nanos 210	K-Nanos 300	K-Nanos 400	K-Nanos 500	Measurement method
Type	-	Aligned bundle	Aligned bundle	Aligned bundle	Aligned bundle	Aligned bundle	FE-SEM
Bundle Length	μm	Ave. 40~50	Ave. 40~50	Ave. 60~90	Ave. 90~100	Ave. 60~80	FE-SEM
Diameter	nm	Ave. 11~13	Ave. 11~13	Ave. 10~15	Ave. 14~16	Ave. 12~17	TEM
Bulk Density*	g/mL	0.015 ~ 0.030(P) 0.060 ~ 0.140 (T)	0.015 ~ 0.030((P) 0.060 ~ 0.140 (T)	0.080~0.130 (T)	0.060~0.140 (T)	0.080~0.130 (T)	Tapping Method
BET	m^2/g	200~230	250~280	155~195	190~220	220~260	BET
Crystallinity	I_G/I_D	0.8~1.0	0.9~1.2	0.7~1.0	1.0~1.2	0.7~1.0	Raman
Carbon Purity	%	~95	~95	≥95	~98	≥95	TGA
Ref.	-	General MWCNT	Highly Conductive MWCNT	Olefin Composites	High Purity MWCNT	Rubber & Energy Applications	

* P : Powder type, T : Pellet type