

UIPAC Name	also known as	purity range (% C, on dried material)	crystal size range Lc (nm)	crystallinity range c/2 (nm)	particle size range (millimeter)
<b>Natural Flake Graphite</b>	crystalline graphite or	85-99.98%	>500	0.3354-0.3360	<1
<b>Vein Natural Graphite</b>	Crystalline vein	98-99.8%	>500	0.3354-0.3360	<1
<b>Amorphus Natural graphite</b>	micro-crystalline graphite	80-90%	20-50	0.3360-0.3665	<1
<b>Primary Synthetic Graphite</b>	Primary artificial graphite	99.5-99.99%	50-250	0.3354-0.3360	<10
<b>Secondary Synthetic Graphite</b>	Electrographite or Acheson graphite or scrap or electrodes scrap	98.0-99.5%	20-50	0.3364-0.3380	<10
<b>Expandable graphite</b>	Graphite Salts	80-99.95% (contains acids; C-Content Graphite)	20-50	0.3354-0.3360	<1
<b>Expanded Graphite</b>	Exfoliated graphite	94.0-99.98%	20-50	0.3354-0.3360	<0.1
<b>Graphene</b>	Monolayer of graphite	99.5-99.99%	20-50	not applicable?	<0.1
<b>Nanotubes</b>	Multiwall Nanotubes or MWNT	99.5-99.99%	?	0.3354-0.3360?	<0.1
<b>Single Wall Nanotubes</b>	SWNT	99.5-99.99%	?	not applicable?	<0.1
<b>Fullerenes</b>	Buckyball	99.5-99.99%	?	not applicable?	<0.1
<b>Carbon Nanoplatelets</b>		99.5-99.99%	?	0.3354-0.3360?	<0.1
<b>Graphitized Carbon</b>	Graphitic Carbon	85-99.8%	<5	>0.34	<10
<b>Activated Carbon</b>		85-99.8%	<5	>0.34	<1
<b>Petroleum Coke</b>		85-90%	<5	>0.34	<100
<b>Calcined Coke</b>	Calcined petroleum coke	98-99.99%	<5	>0.34	<10
<b>Pyrolytic Graphite</b>		?	?	?	?
<b>Carbon Blacks</b>		99.5-99.99%	<5	>0.34	<0.1

For XRD Type of measurement/method needs to be clarified  
Max. Lc depends on method. Assumption is 250 nm?  
d002 ranges might be not as strict as given above - Comparison of sample data?