Certificate of Analysis

NMP-based SWCNT Conductive Agent

Model: TXBN-04/1P
Batch number: TXBN-04/1P-202508-SM17-0905
Production date: 20250905
Storage : 6 months

Applications

Carbon search single-walled carbon nanotubes (SWCNTs) water-based slurry is widely used in lithium ion batteries and other applicable applications.

Ingredient

Single-walled Carbon Nanotubes	0.40wt.%
Dispersing Agent	1.00wt.%
NMP	98.6wt.%

Parameters	Units	Specifications	Actual Value	Method of Evaluation
Appearance	-	Odorless black liquid	OK	Visual inspection
Solid Content	%	1.4±0.1	1.417	Weight of dry residue
Optical Density	Absorbance units	0.4 – 0.6	0.510	Spectrophotometer
Moisture	-	<800ppm	649	Karl Fischer titration
Viscosity*	cPs	at the factory: 1500-4500 upon arrival: 1500-4500	2180	Brookfield RVDV2T Rotor # 5 / 60 RPM
Magnetic Impurities (Cr/Cu/Fe/Mn/Ni/Zn)	ppb	-	(2.59/0.131/38.62/3.68/1.4/0)	ICP-AES
Metal Impurities (Cr/Cu/Fe/Ni/Zn)	ppm	(<1/<1/<20/<1/<1)	(0/0/6.4/0/0)	ICP-AES

Measurement features:
* Single-walled carbon nanotube conductive slurry is a non-Newtonian fluid with both pseudoplastic and touch degeneration, that is, its viscosity depends on the shear rate (pseudoplastic) at the time of shear (touch degeneration). The change of touch is complex, switching between thichange and rheology under certain conditions.