TECHNICAL DATA SHEET

Technical Data Sheet: COOH Functionalized Multi Walled Carbon Nanotubes 50nm

Product code: 030307

Revision 2026-11

Description

Multi walled carbon nanotubes (MWCNT) functionalized with carboxyl (COOH) groups by acid treatment. We supply these grades as a dry powder, with the COOH groups giving improved wetting in polar media and reactive sites for coupling.

Specifications

Property	Value
Outer diameter	50-80nm
Inner diameter	5-10nm
Length	10-20um
Specific surface area	60 m2/g
Purity	>98 wt%
Ash	<1.5 wt%
Functional group content	0.5 wt% COOH groups
Electrical conductivity	>100 S/cm
Bulk density	0.18 g/cm3
True density	~2.1 g/cm3

Characterization

Representative TEM image of this grade is shown below. A representative Certificate of Analysis is available.



TEM, representative

Applications

Our COOH functionalized MWCNT are suited to water-borne dispersions, epoxy, polyurethane and polyamide composites, and coatings where covalent coupling or improved dispersion is needed.

Storage and Handling

Store sealed, dry, at room temperature. Use respiratory protection when handling dry powder; see SDS.

Documentation

Representative data provided. A representative Certificate of Analysis is available. Safety Data Sheet at cheaptubes.com/nanomaterial-msds-safety-sheets.

Application results depend on formulation, equipment and process conditions; confirm with your own trials. Specifications reflect the product page at cheaptubes.com as of November 2026.