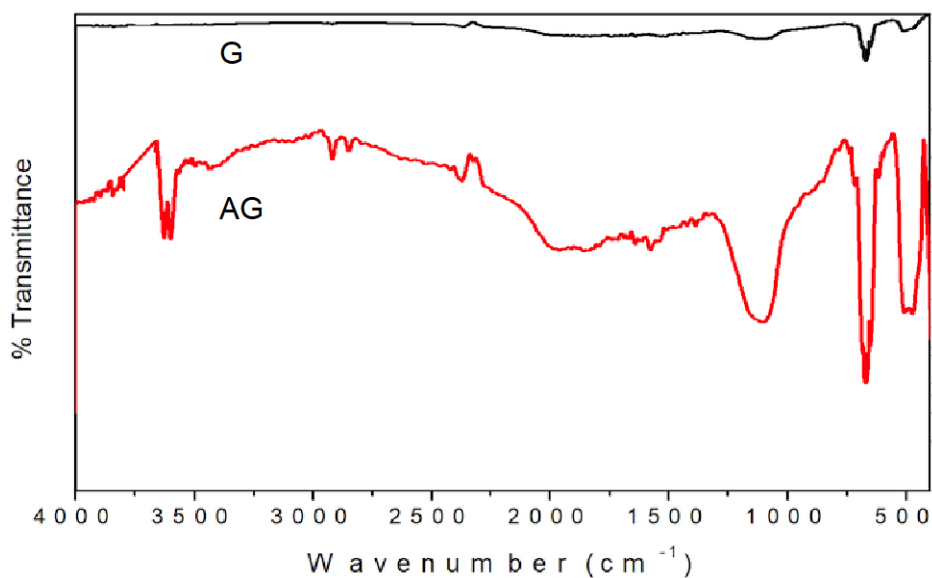


Functionalized Graphene Powders

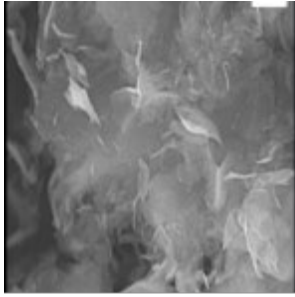
GrapheneTX offers aminated graphene (AG) powders with different thickness and nitrogen content. Our eco-friendly method of production allows for these materials to be produced at a large scale. These materials can be applied in a variety of applications, including coatings (e.g. epoxy or urethane), carbon fiber (CF) composites, supercapacitors, Li-ion batteries, engineering plastics (e.g. Nylon-6,6), etc.

Aminated Graphene Powder

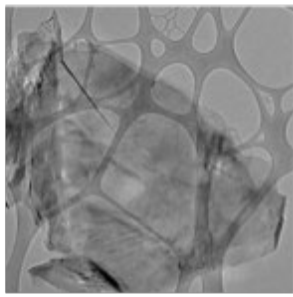
Product	Diameter (micron)	Carbon wt%	Nitrogen wt%	Hydrogen wt%	Description
AG-2	>2	95.9	2.4	0.4	Powder
AG-5	5	97.4	1.5	0.3	Powder



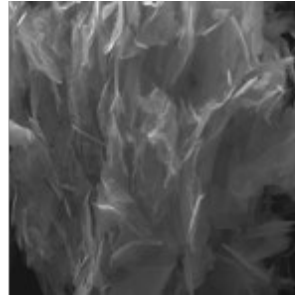
FTIR spectra of G (Black) and AG (red)



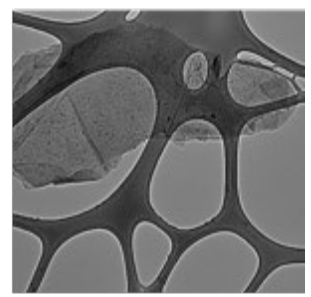
SEM of AG-5



TEM of AG-5



SEM of AG-2



TEM of AG-2

Functionalized Graphene Dispersions

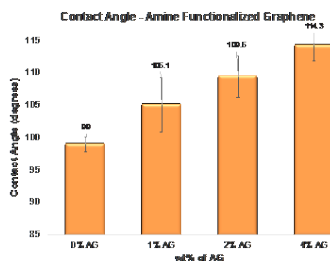
GrapheneTX offers aminated graphene (AG) dispersions with AG-2 and AG-5 in different solvents and concentrations. Our eco-friendly method of AG production allows for these materials to be produced at a large scale. GrapheneTX can produce dispersions tailored to your application. These materials can be applied in a variety of applications, including coatings (e.g. epoxy or urethane), carbon fiber (CF) composites, supercapacitors, Li-ion batteries, engineering plastics (e.g. Nylon-6,6), etc.

Applications

- Coatings, paints
- CF composites (Automotive, Windmill blade)
- Engineering Plastics

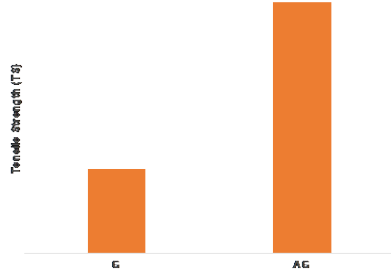
Benefits

- Barrier enhancement
- Corrosion and Moisture resistance
- Enhanced mechanical properties
- Enhanced electrical/thermal conductivity
- Increased UV-durability



AG Epoxy Coating Contact Angle

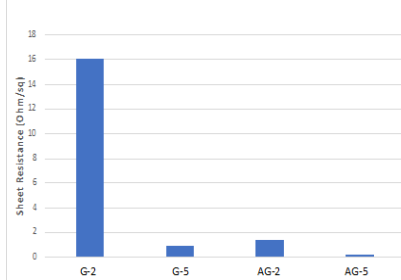
- 15% increase in contact angle



AG Epoxy Tensile Strength

- 70% increase in tensile strength

*G: non-functionalized graphene



AG Coated Fabric Conductivity

- 91% decrease in sheet resistivity

*G-2 and G-5 are non-functionalized graphene

Aminated Graphene Dispersions

Product	Graphene Type	Solvent*	Diameter (micron)	Concentration* wt%
AG-2	Aminated Graphene	Water	<2	2.5
AG-2	Aminated Graphene	Propylene Glycol (PG)	<2	2.5
AG-2	Aminated Graphene	1-Methyl-2-pyrrolidone (NMP)	<2	2.5
AG-5	Aminated Graphene	Water	5	2.5
AG-5	Aminated Graphene	Propylene Glycol (PG)	5	2.5
AG-5	Aminated Graphene	1-Methyl-2-pyrrolidone (NMP)	5	2.5

Additional concentrations or solvents can be prepared upon request → Add MEK to dispersion chart