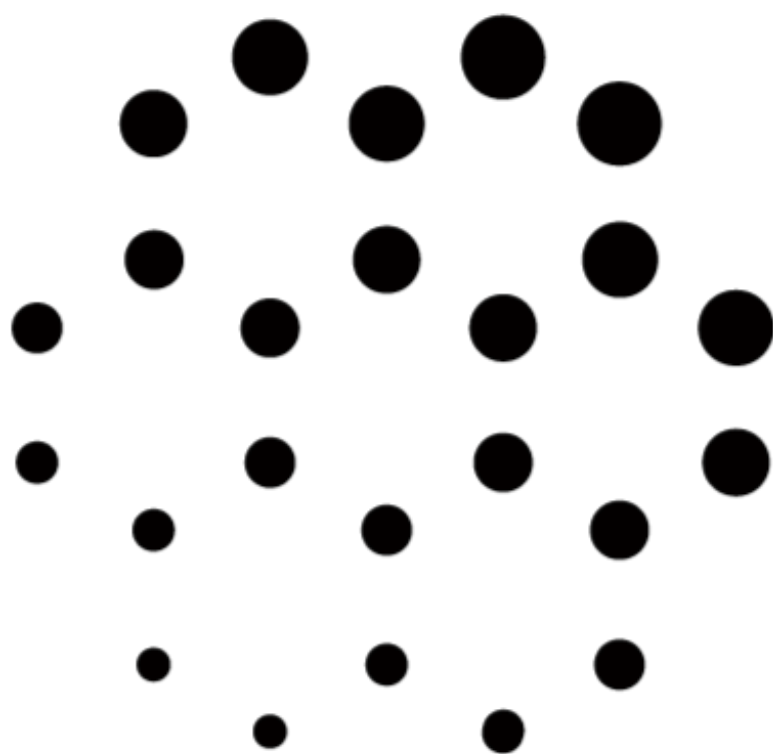


GRAPHENE POWDER

Graphene TX



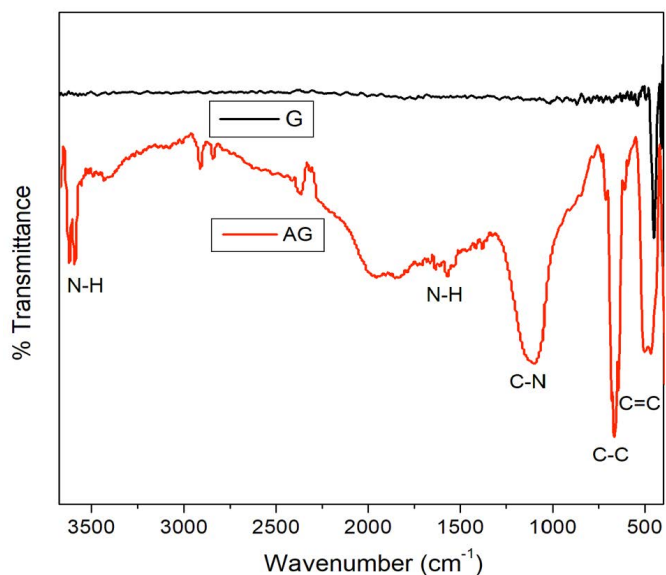


Functionalized Graphene Powders

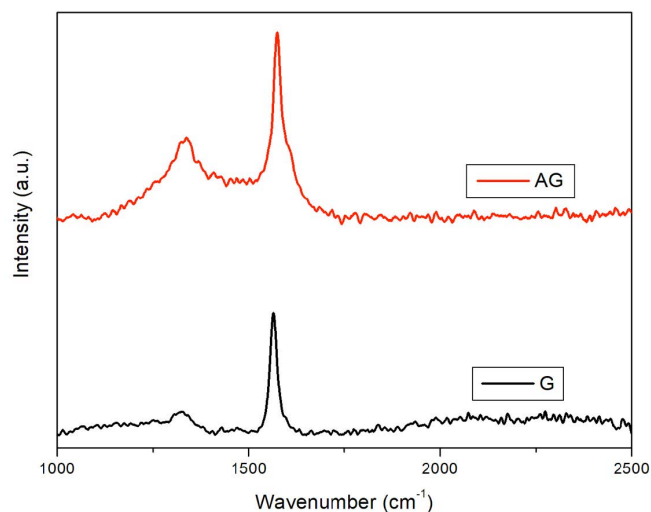
GrapheneTX offers aminated graphene (AG) powders with different particle size and nitrogen content. Our eco-friendly method of production allows for these materials to be produced at a large scale. These materials can be applied in a variety of applications including coatings (e.g. epoxy or urethane),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

GRAPHENE POWDER

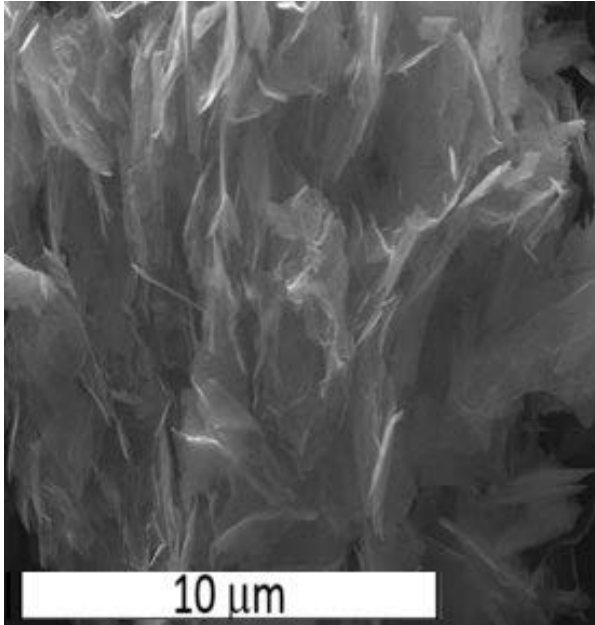
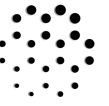
Product	Thickness nm	Carbon wt%	Hydrogen wt%	Nitrogen wt%	Description
GTX-AG2-P	>2	95.9	0.4	2.4	Powder
GTX-AG5-P	5	97.4	0.3	1.5	Powder



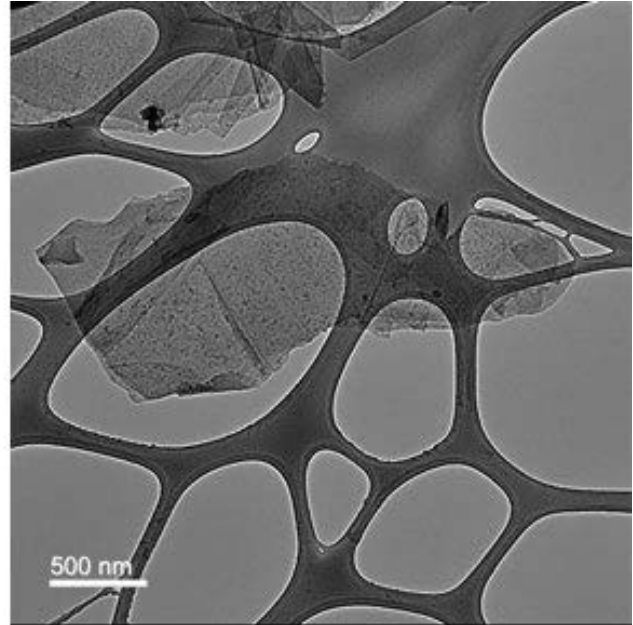
FTIR spectra of G (Black) and AG (red)



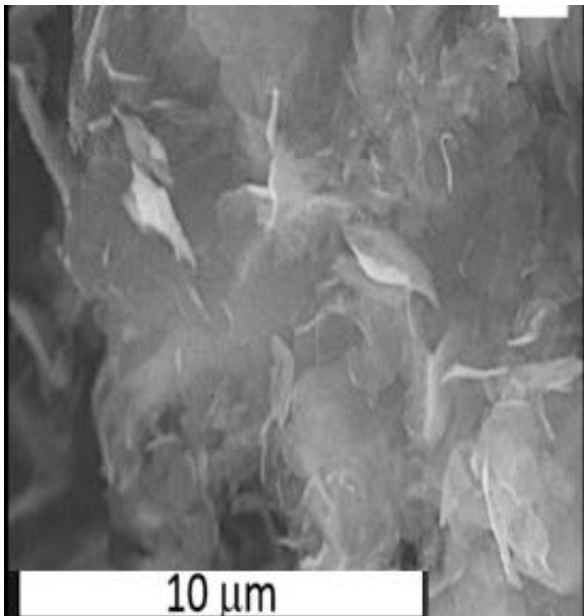
FTIR spectra of G (Black) and AG (red)



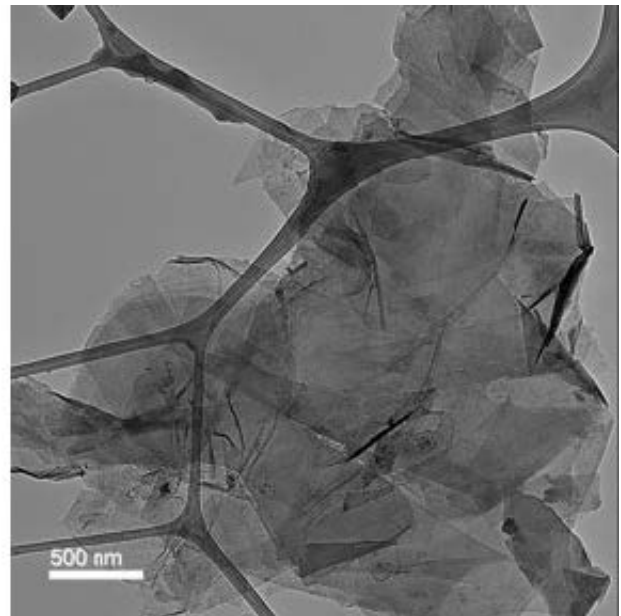
SEM GTX-AG2-P



TEM GTX-AG2-P



SEM GTX-AG5-P



TEM GTX-AG5-P



Location: 619 Mogonye Ln, Elgin, TX 78621

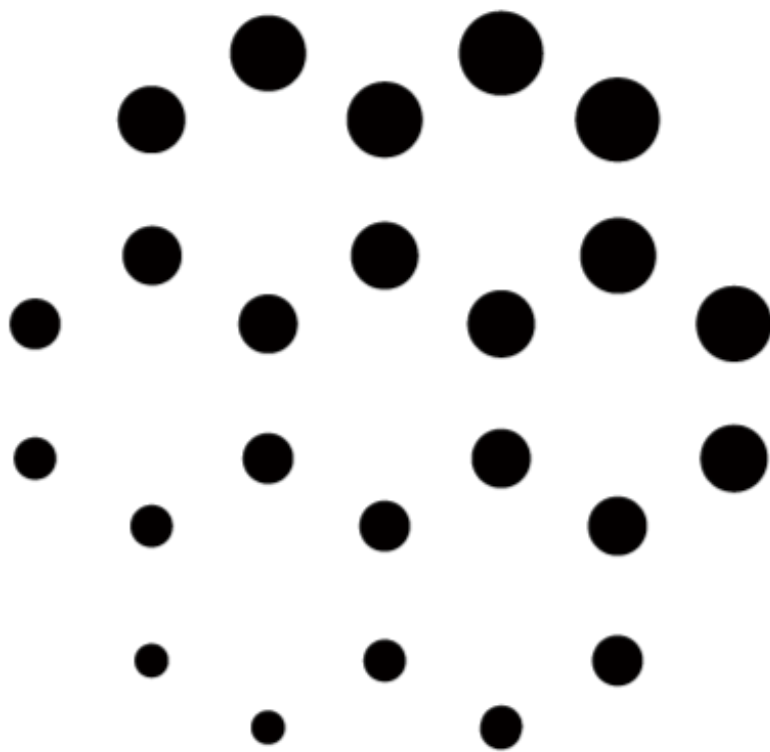
Phone: +1 (512) 229-9635

sale@graphenetx.com

www.graphenetx.com

GRAPHENE DISPERSIONS

Graphene TX





Functionalized Graphene Dispersions

GrapheneTX offers aminated graphene (AG) dispersions with GTX-AG2-P and GTX-AG5-P in different solvent and concentrations. Our eco-friendly method of AG production allows for these materials to be produced at 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, super-capacitors, Li-ion batteries, engineering plastics (e.g. Nylon-6,6), etc.

APPLICATION

- Coatings and Paints
- CF Composites (Automotive, Windmill Blade)
- Engineering Plastics

BENEFIT

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

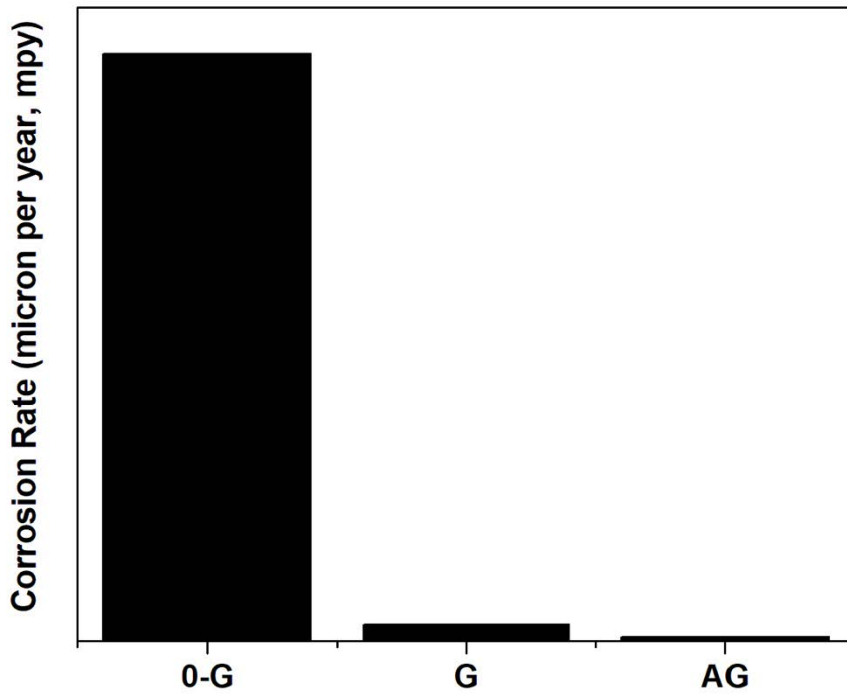
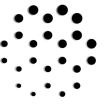


0%



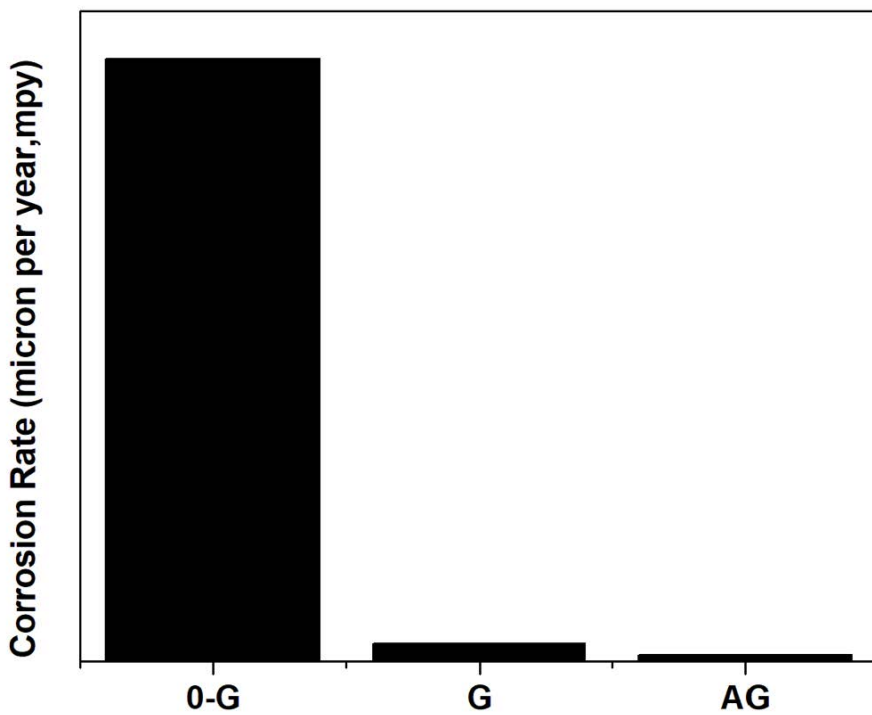
4% AG

AG Urethane Coating Corrosion Resistance - Qualitative Corrosion Test done using 3.5% NaCl solution at 25°C for two months



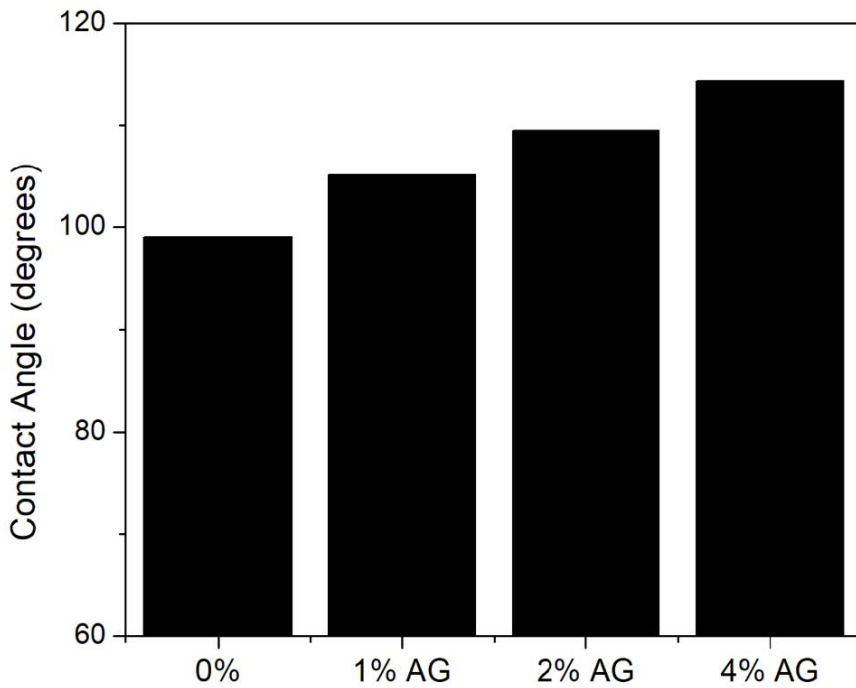
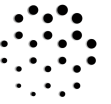
AG Urethane Coating Corrosion Rate
(Coated on Automotive Steel)

- 75% decrease in corrosion rate at 4% AG



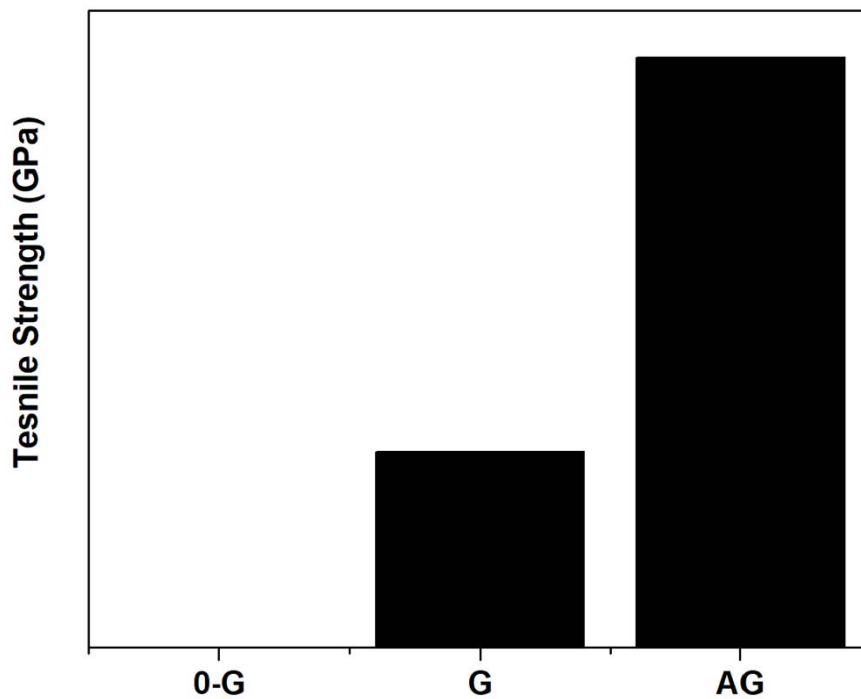
AG Epoxy Coating Corrosion Rate
(Coated on Carbon Steel)

- 60% decrease in corrosion rate at 4% AG



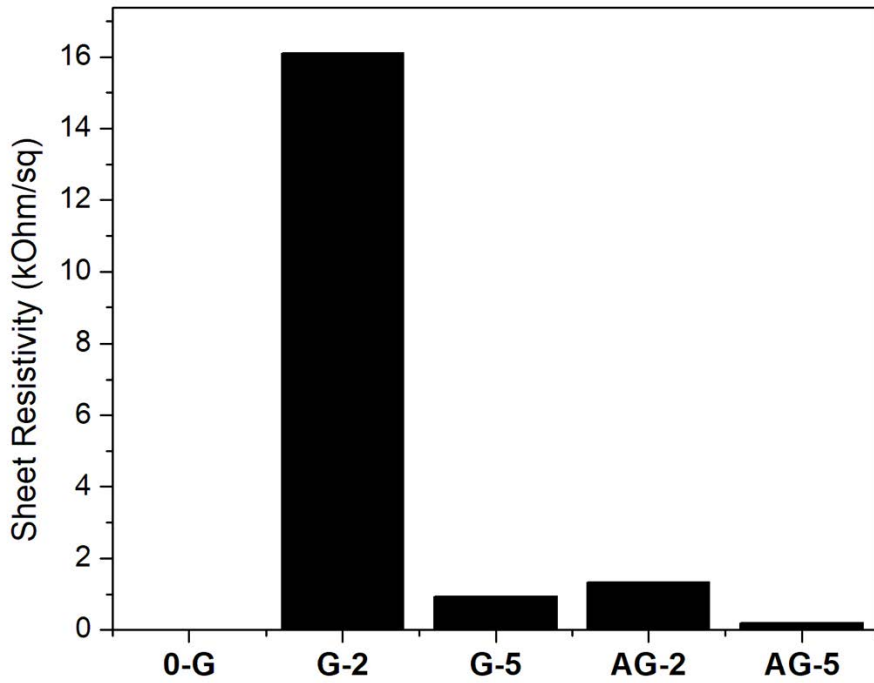
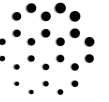
AG Epoxy Coating Contact Angle

- 15% increase contact angle



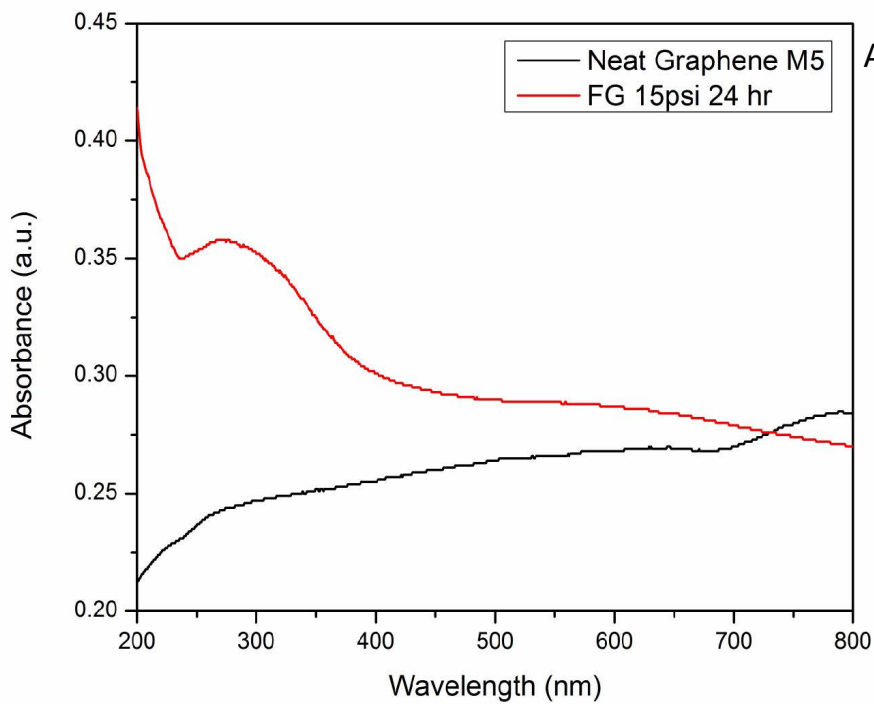
AG Epoxy Mechanical Properties

- 75% increase in Tensile Strength (TS)



AG Coated Fabric Conductivity

- 91% decrease in sheet resistivity



AG UV-Vis Spectra



Product	Functionalized Graphene	Solvent	Thickness nm	Concentration wt%
GTX-AG2-ASW	Aminated Graphene	Water	<2	2.5
GTX-AG2-ASM	Aminated Graphene	MEK	<2	2.5
GTX-AG2-ASP	Aminated Graphene	Propylene Glycol (PG)	<2	2.5
GTX-AG2-ASN	Aminated Graphene	1-Methyl-2-pyrrolidone (NMP)	<2	2.5
GTX-AG5-ASW	Aminated Graphene	Water	5	2.5
GTX-AG5-ASM	Aminated Graphene	MEK	5	2.5
GTX-AG5-ASP	Aminated Graphene	Propylene Glycol (PG)	5	2.5
GTX-AG5-ASN	Aminated Graphene	1-Methyl-2-pyrrolidone (NMP)	5	2.5

Additional concentrations or solvents can be prepared upon request



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