# E-GO<sup>™</sup> in Polypropylene

MITO<sup>®</sup> Material Solutions' flagship product, E-GO, has been designed with versatility, realistic solutions, and accessibility in mind. E-GO is a hybridized graphene oxide/POSS additive which reactively disperses while resisting agglomeration -- unlocking the properties of graphene for various industries by utilizing both thermoset and thermoplastic polymer composites. With a MITO Powered<sup>™</sup> polypropylene, you can create an engineered plastic with a higher amount of recycled content that outperforms competitors.

### DISPERSION & INTEGRATION

E-GO has been designed to seamlessly integrate into your manufacturing method - from beginning to end - without introducing processing difficulties.

- Compounding
- Injection molding
- Blow molding
- SLA/FDM

Simply measure and mix as normal **at loadings as low as 0.1%** by weight of polymer.

COLLABORATION

### EXPLORE

We want to work with you and know your story. MITO partners with a variety of industries interested in enhancing material performance. In order for us to help, we need to understand your current materials, processes, and goals so we can recommend the best MITO solution for your needs.

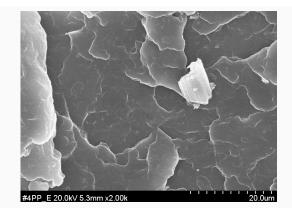
### **EVALUATE**

Once we establish the benchmarks in your polymer system, MITO can create samples and deliver a custom data set showing a direct comparison. If preferred, our team can also work directly with your team at your facility.

### **COLLABORATE**

MITO solutions are designed to integrate into the base polymer – before part production – and can be distributed commercially via direct sales or by distributing through your polymer supplier/compounder. This ensures seamless integration into your supply chain without added time or process interruption.

SEM 2000X MAG | E-GO PARTICLE WITHIN PP



## OUTPERFORM YOUR COMPETITORS WITH THE NEXT GENERATION MATERIALS





TOM SCHREPFERMAN VP OF SALES (855) 344-6486 TOM @ MITOMATERIALS.COM



TESTING METHOD	PROPERTY	UNITS	NEAT	0.1%wt E-GO	% DIFFERENCE
<b>TENSILE</b> ASTM D638	Maximum force withstood	kN	21.60	30.90	35%
	Modulus at break	MPa	1470	1680	13%
	Strain at break	%	27.89	5.18	-137%
FLEXURAL ASTM D790	Maximum force withstood	kN	0.06	0.07	15%
	Modulus at break	MPa	1095	1183	8%
	Strain at break	%	2.18	2.25	3%
COMPRESSION	Maximum force withstood	kN	-	-	-
	Modulus at break	MPa	-	-	-
	Strain at break	%	-	-	-
ІМРАСТ	Izod impact resistance	J/m	-	-	-
FRACTURE TOUGHNESS	Gıc	kJ / m²	-	-	-
DYNAMIC MECHANICAL ASTM D7028	Storage modulus	MPa	2420	2520	4%
	Viscous modulus	MPa	_		_
	Dampening coefficient	in a	_	_	_
GLASS TRANSITION TEMP	Tc	°C	15.81	16.67	5%
ELECTRICAL RESISTIVITY ASTM D257	Resistivity through plane	Ohm · m	1.80E+14	2.00E+11	-200%
	Resistivity in plane	Ohm · m	-	-	-

\* All tests were conducted according to ASTM standards.

\*\*Samples: SABIC 595a via injection molding

**Not seeing a property you need?** Contact MITO with any inquiries and our highly trained team will work with you and your engineers to design a study with your specific material requirements in mind.

