ASX Announcement

11 September 2018

Release of PureGRAPH™ Product Range and Product Information Sheet

Highlights

- New range of three PureGRAPH™ graphene products is announced, with tightly controlled platelet sizes
- Marketing leading supporting data in new PureGRAPH™ Product Information Sheet
- PureGRAPH™ registered as a trade mark
- Suitability for use in:
  - 5 micron - electrically conductive inks and coatings
  - 10 micron - reinforcing of rubbers and carbon fibre and glass fibre filled composites
  - 20 micron - fire retardant paints, concretes geotextiles.

Advanced materials company, First Graphene Limited ("**FGR**" or "t**he Company**") (ASX: FGR) is pleased to announce the release of its PureGRAPH™ graphene products along with supporting Product Information Sheets.

Background

Since it was first isolated by the University of Manchester in 2004, graphene has been acknowledged as one of the most promising of all nanomaterials available for industry. There are many challenges associated with the development of new material products, taking into account scientific, engineering and regulatory requirements. One of the greatest challenges experienced to date has been the ability for graphene manufacturers to supply products of a consistent and verifiable quality at scale, in repeated production runs. First Graphene announces a range of high quality graphene products with a fully locked down specification from our 100 tonne year manufacturing facility.

Lack of high integrity information which can be relied upon by potential customers is an ongoing problem across the graphene industry. Recognising this, FGR has expended considerable effort to develop what we believe to be one of the most useful graphene product information sheets released by any company.

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Over the last five months FGR's management has worked with various universities and on its own production processes to ensure it could consistently produce a suitable range of products. After exhaustive product tests and discussions with current and potential users it has developed the PureGRAPH™ range. The initial product includes PureGRAPH™ graphene products with lateral sizes of 20µm, 10µm and 5µm. Further size options will be added later. Due to its unique process it is able to produce graphene with larger lateral sheet sizes if a customer should have a particular application. To the best of our knowledge no other graphene manufacturer can produce large sheet sizes in bulk.

Sheet Size Suitability

The product range has been developed to address specific market requirements.

PureGRAPH™ 20

With a lateral size of 20µm this product is ideal where fire retardancy barrier, thermal conductivity and reinforcing properties are required. Applications include fire retardant paints, concretes and geotextiles.

PureGRAPH™ 10

With a lateral size of 10µm this product is readily dispersed into polymer resins and rubbers providing excellent reinforcing properties. Applications include reinforcing of rubbers and carbon fibre and glass fibre filled composites

PureGRAPH™ 5

With a lateral size of 5µm this product is particularly useful for formulations in low viscosity systems such as inks where solution stability and final film appearance is important. Applications include electrically conductive inks and coatings.

Due to the method of manufacture and the tightly controlled particle size distribution, of the products agglomeration of the powders is low, making the products readily dispersible in a range of solvent and polymer resin systems.

Evaluation of these products is well underway with our university partners and with our commercial partners. Orders for several kilogram development quantities from commercial customers are already being supplied.

A copy of the Product Information Sheet will be available on the Company's website in the coming week.

Product launch events are planned for upcoming exhibits.

Managing Director, Craig McGuckin said

"The launch of our PureGRAPH™ high quality graphene products along with a detailed product information sheet is a significant step forward in the commercialisation of graphene. Our customers can now be confident of the quality of the graphene products they are purchasing and assured that their product development has a reliable raw material supply to build from. Our competitive research has revealed that no other manufacturers have been prepared to present the detail of product information shown by FGR."

About First Graphene Ltd (ASX: FGR)

First Graphene has established a commercial graphene production facility for the bulk scale manufacture of graphene at competitive prices. The Company continues to develop graphene related intellectual property from which it intends to generate licence and royalty payments.

The Company has collaboration arrangements with four universities and is at the cutting edge of graphene and 2D related material developments. Most recently First Graphene has become a Tier 1 participant in the Graphene Engineering and Innovation Centre (GEIC) of the University of Manchester. First Graphene is working with numerous industry partners for the commercialisation of graphene and is building a sales book with these industry partners.

About Graphene

Graphene, the well-publicised and now famous two-dimensional carbon allotrope, is as versatile a material as any discovered on Earth. Its amazing properties as the lightest and strongest material, compared with its ability to conduct heat and electricity better than anything else, means it can be integrated into a huge number of applications. Initially this will mean graphene is used to help improve the performance and efficiency of current materials and substances, but in the future, it will also be developed in conjunction with other two-dimensional (2D) crystals to create some even more amazing compounds to suit an even wider range of applications.

One area of research which is being very highly studied is energy storage. Currently, scientists are working on enhancing the capabilities of lithium ion batteries (by incorporating graphene as an anode) to offer much higher storage capacities with much better longevity and charge rate. Also, graphene is being studied and developed to be used in the manufacture of supercapacitors which can be charged very quickly, yet also be able to store a large amount of electricity.

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