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ASX ANNOUNCEMENT

first graphene
The world's leading graphene company

5th May 2021

Research shows PureGRAPH® benefits in thermoplastics

HIGHLIGHTS

- **University of Warwick early research highlights benefits for industrial thermoplastics**
- **Results confirm easy dispersion, good flowability and processability**
- **Shows promise for commercialisation across new industry sectors**

First Graphene Limited (ASX:FGR; "First Graphene" or "the Company") is pleased to advise on positive progress regarding the Company's collaborative project with world-leading researchers at the University of Warwick on the use of graphene in thermoplastic systems.

The project, which commenced in September 2020, aims to unlock the potential of using graphene to enhance the performance of a range of thermoplastic systems.

It is being conducted at Warwick Manufacturing Group (WMG), an industrially focused group with strong links to world leading industrial partners including Jaguar Land Rover.

The team, led by Research Director Professor Tony McNally, Professor in Nanocomposites and Director of the International Institute for Nanocomposites Manufacturing (IINM) at WMG, has completed a study of First Graphene's materials and their suitability for incorporation into commonly used engineering polymers.

Initial results confirm that the Company's PureGRAPH® powders allow easy dispersion into polymers with good flowability and processability. When added to engineering thermoplastics, PureGRAPH® graphene improves thermal conductivity and mechanical properties.

Another positive outcome from the initial research was that PureGRAPH® can be incorporated into engineering plastics at very high levels, up to 30 per cent by weight, without substantial increases in viscosity.

Prof. McNally said the team had made a promising start to the project.

"*We have been very pleased with the way that First Graphene's products are easy to process, integrating effectively into the engineering polymers we are using for our study*," he said.

"*Even at very high loadings, the graphene platelets are well dispersed and aligned with the polymer flow.*"

First Graphene CEO Michael Bell said the Company was very pleased with the progress.

"*We appreciate the valuable scientific expertise from Prof. McNally's team and will apply the learning from the project at the earliest possible convenience as we continue the commercialisation of our products in thermoplastic systems," Mr Bell said.*

"This is promising for extending our reach into numerous additional sectors including automotive manufacturing and various engineering applications."

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About First Graphene Ltd (ASX: FGR)

First Graphene Ltd. is the leading supplier of high-performing, graphene products. The company has a robust manufacturing platform based upon captive supply of high-purity raw materials and an established 100 tonne/year graphene production capacity. Commercial applications are now being progressed in composites, elastomers, fire retardancy, construction and energy storage.

First Graphene Ltd. is publicly listed in Australia (ASX:FGR) and has a primary manufacturing base in Henderson, near Perth, WA. The company is incorporated in the UK as First Graphene (UK) Ltd. and is a Tier 1 partner at the Graphene Engineering and Innovation Centre (GEIC), Manchester, UK.

PureGRAPH® Range of Products

***PureGRAPH**® graphene powders are available in tonnage volumes with lateral platelet sizes of 50µm, 20µm, 10µm and 5µm. The products are high performing additives, characterised by their high quality and ease of use.*

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With authority of the board, this announcement has been authorised for release by Aditya Asthana, Chief Financial Officer and Company Secretary.