# **ASX Announcement**

29 July 2019



# June Quarterly Activities Review

Another Successful Quarter

### **HIGHLIGHTS**

- NICAS approval received for PureGRAPH<sup>®</sup> in Australia. This augments the REACH registration for PureGRAPH<sup>®</sup> graphene products in Europe and the United Kingdom.
- Significant fire retardancy test results show PureGRAPH® improves polyurethane safety.
- Placement and early option exercise raised \$4.8m during the quarter, with additional exercise funds of \$1.32 million coming in since the close of the quarter.

#### **Overview**

The June quarter saw First Graphene continue to make substantial progress in its objective of commercialising the PureGRAPH® range of graphene products. The addition of PureGRAPH® has been proven to provide a range of improved performance characteristics in a number of products.

### **Fire Retardancy in Polyurethane**

First Graphene had been conducting bulk sample test work in association with the University of Adelaide, on performance of the PureGRAPH® range of graphene products for fire retardancy in polymer compounds. The initial results have been impressive.

#### **Test Results**

The base polyurethane elastomer burnt with an LOI value of 22.85%. The addition of ca. 1% PureGRAPH® to the polyurethane elastomer raises the LOI to 31.6%, meaning that under normal atmospheric conditions it will not propagate or support flame and will only burn in the presence of significantly higher oxygen levels. This also promotes graphene enhanced polyurethane elastomers up the LOI index, increasing the potential market share of these materials.

Previous tests have demonstrated that the PureGRAPH® range of products provide significantly increased tensile, tear and abrasion wear characteristics to the base polyurethane product. The addition of fire retardancy characteristics has been identified as a key market need in the mining industry.

### First Graphene Limited

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### **Registered Office**

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#### Directors

Warwick Grigor Craig McGuckin Peter R Youd

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#### ASX Symbol

FGROC
Frankfurt Stock Exchange
FSE:M11



While further testing is required to confirm the initial test results, FGR is optimistic the observed fire retardancy qualities will enable the delivery of a new generation of safer polyurethane elastomer materials to industry, without compromising strength and wear characteristics.

## **Regulatory Submissions**

On 28th May 2019, the Company was advised by the Department of Health (NICNAS) that its assessment is complete, and approval will be granted to produce and sell PureGRAPH® products in Australia from our existing production facility which has a capacity of up to 100 tpa.

This approval placed FGR in the unique position of being the only entity with regulatory approval to manufacture and sell graphene powders in Australia.

When combined with the previously granted REACH registration FGR is the only entity in the world with regulatory approval for the sale of up to 10 tonnes per annum of graphene powders in the UK and Europe and to sell out our capacity of graphene powders in Australia

It is necessary for all producers, or potential producers and importers of graphene to complete the NICNAS application to notify the chemical/graphene. This involves providing items such as chemical characterisation, toxicology and environmental information, all of which required considerable research. An advantage of being a first mover is that now the new chemical is approved, it is kept confidential (not on the public or confidential inventory lists) for the first 5 years – this is called the 'non-listing period' and means First Graphene can import or manufacture the new chemical under this registration.

Work has been initiated on registration of FGR's products in the United States.

### Corporate

In April FGR announced it had received firm commitments for a placement to eligible institutional and sophisticated investors of approximately 23.3 million shares at an issue price of \$0.15 to raise \$3.5 million. The issue of Shares was within the Company's capacity under Listing Rule 7.1 and did not require shareholder approval.

During the quarter the exercise of options raised \$1.332 million. Since the end of June a further \$1.32 million has been received in option exercise funds. It is anticipated further funds will be received prior to 8 August 2019, when the option exercise price increases to \$0.20 per share.

During the quarter, FGR continued to reach out to its target markets and had a presence at Graphene and 2D materials – IDTechEx (Germany, April), Evolving Concrete (UK, June) and Composites – Automotive Showcase (UK, June).

Warwick Grigor and Andy Goodwin were also invited to participate in the American Graphene Summit in Washington, DC (May) which included a Capitol Hill meeting with leading industrialists, government institutes and defence contractors.

In the next quarter, FGR will continue to reach out to its target markets and will have a presence at Composites - Europe (Stuttgart, Germany, September) and Composites in Motorsport (Williams F1 Conference Centre, UK, October).



Significant June Quarter Announcements		
Date	Subject Matter	URL Link
4 April 2091	FGR Successfully Completes Placement To Raise \$3.5 Million	https://firstgraphene.net/wp- content/uploads/austocks/fgr/2019 04 04 FGR 15543648 15.pdf
12 April 2091	Change of ASX Classification	https://firstgraphene.net/wp- content/uploads/austocks/fgr/2019 04 12 FGR 15550560 19.pdf
30 May 2019	NICNAS Approval Received	https://firstgraphene.net/wp- content/uploads/austocks/fgr/2019 05 30 FGR 15592032 33.pdf
13 June 2019	Issue Of Assessment Certificate	https://firstgraphene.net/wp- content/uploads/austocks/fgr/2019 12 11 FGR 15760512 35.pdf
17 June 2019	Significant Fire Retardancy Test Results	https://firstgraphene.net/wp- content/uploads/austocks/fgr/2019_06_17_FGR_15607263 60.pdf

# 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 was recently 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  $20\mu m$ ,  $10\mu m$  and  $5\mu m$ . The products are high performing additives, characterised by their high quality and ease of use.

For further information, please contact

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