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PureGRAPH® product range extended to include EVA carrier and customised options

HIGHLIGHTS

- **Second masterbatch product formulation released for use in plastic and rubber applications**
- **Designed to fit into existing production lines for ease of use and faster industry adoption of graphene solutions**
- **Custom masterbatch options available on request with polymer properties tailored to specific materials or applications**

First Graphene Limited (ASX:FGR; "First Graphene" or "the Company") is pleased to announce the release of its second dedicated masterbatch product designed for blending with a range of plastic and rubber materials.

A Masterbatch is a solid additive used in the plastics industry. It is a concentrated mixture of pigment, reinforcing material and/or other additives encapsulated within a suitable carrier resin, typically produced using extrusion technology. The mixture is then cooled before being fed into a pelletiser to be cut and formed into chips. Masterbatches are formulated to allow product manufacturers to easily incorporate graphene additives into their manufacturing processes.

PureGRAPH® MB-EVA is a graphene enhanced Ethylene-Vinyl Acetate (VA) copolymer masterbatch, which utilises First Graphene's few-layer, high-performing graphene additives.

The new formulation extends First Graphene's masterbatch product range, increasing the potential applications. Designed primarily for use in elastomers, such as rubber systems and plastics, as well as with thermoplastics, the high vinyl acetate content of the base polymer brings softness, flexibility and polarity.

The masterbatch formulation could also potentially be compatible with other systems including resins, waxes, adhesives, and oil and bitumen products, opening the way for manufacturers of a broad range of products to benefit from the addition of graphene.

The Company has been working with third party masterbatch suppliers to develop its range of ready-to-use, graphene enhanced formulations.

Graphene enhanced masterbatches have the capability to provide a range of benefits to end products including increased mechanical performance, improved thermal and electrical conductivity, EMI shielding, increased barrier properties and fire retardancy.

PureGRAPH® MB-EVA complements First Graphene's range of powder additives, PureGRAPH® AQUA and the recently released LDPE masterbatch. Custom PureGRAPH® masterbatch options are also now available on request in a range of polymer options that can be tailored to specific materials or applications.

Michael Bell, Managing Director and CEO of First Graphene said: "PureGRAPH® MB-EVA is the second ready-made masterbatch formulation released by the Company and is designed to provide customers with an off-the-shelf, pre-dispersed graphene carrier that can be easily added to existing processing lines for incorporation into numerous products. It is part of First Graphene's strategy to help industry easily embrace graphene solutions and therefore build faster paths to market."



Figure 1 - PureGRAPH® MB-EVA chip format

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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 and **PureGRAPH® AQUA** pastes with lateral platelet sizes of 50µm, 20µm, 10µm and 5µm, as well as **PureGRAPH® MB-LDPE 20-30** and **PureGRAPH® MB-EVA** masterbatches for plastics and rubbers, are available in tonnage volumes. The products are high performing additives, characterised by their high quality and ease of use.

ASX ANNOUNCEMENT



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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.