

Sparc's ecosparc Graphene Based Coatings Additives Primed for Commercialisation



HIGHLIGHTS

- **Up to 40% improvement verified in the anticorrosive performance of coatings subjected to a 6 month globally recognised test program**
- **Epoxy coatings used in testing with ecosparc, are amongst those that are commercially available from global coatings manufacturers**
- **Tests results confirm Sparc's research capabilities to develop proprietary graphene based additives and positions the company to pursue commercial agreements**

Sparc Technologies Limited (**ASX: SPN**) (**Sparc** or the **Company**) is pleased to advise that after 6 months of comprehensive testing to the ISO standards employed within the Protective & Marine (P&M) Coatings' market, Sparc *graphene based additives* have delivered up to 40% improvement in the anticorrosive performance of atmospheric epoxy coatings. Of note is the fact that the epoxy coatings used in testing with ecosparc, are amongst those that are commercially available from leading coatings manufacturers.

This test program builds on test results previously announced, again confirming that significant results continue for the company's proprietary graphene based additives targeted for use in improving the performance of anti-corrosive coatings. Sparc's addressable coatings market is estimated to be US\$44bn by 2025 and these results support the Company's further engagement with major industry participants[^].

Sparc Managing Director, Mike Bartels, commented:

"After completing this comprehensive testing program we are uniquely placed to advance discussions with Coatings companies. Much is made of the properties afforded by graphene but few companies are in a position to provide the necessary data in support of product claims. We now have the data that aligns with that typically generated and recognised by the global Coatings Industry and we have delivered these results using commercially available products.

Importantly our additives are 'drop-in', meaning that our products can be readily incorporated into existing products without any significant modification to existing formulations; we've done the hard work for the Coatings Industry in evaluating and formulating graphene based additives. Our products are ready for market adoption."

With a focus on employing graphene as a raw material with which to formulate products, Sparc has screened and selected specific grades of graphene for the development of graphene based additives for targeted end uses within the P&M Coatings' market.

[^] See Sparc Presentation dated 22 March 2021

Sparc graphene based additives are much more than simple dispersions, where the latter is primarily intended to aid the handleability of graphene. Graphene based additives are specifically formulated with the aim of delivering an intended performance outcome.

An improvement in anticorrosive performance translates into an extension in the life of a coating thereby extending 'time to first maintenance'. Improved performance outcomes not only serve to lower the lifetime cost of a coatings' system, the extension of coatings' life also delivers quantitative benefits in terms of environmental and sustainability outcomes; a primary business objective for Sparc Technologies.

Chart 1 below illustrates improvement in corrosion performance achieved by addition of a Sparc graphene based additive to commercially available anticorrosive coatings.

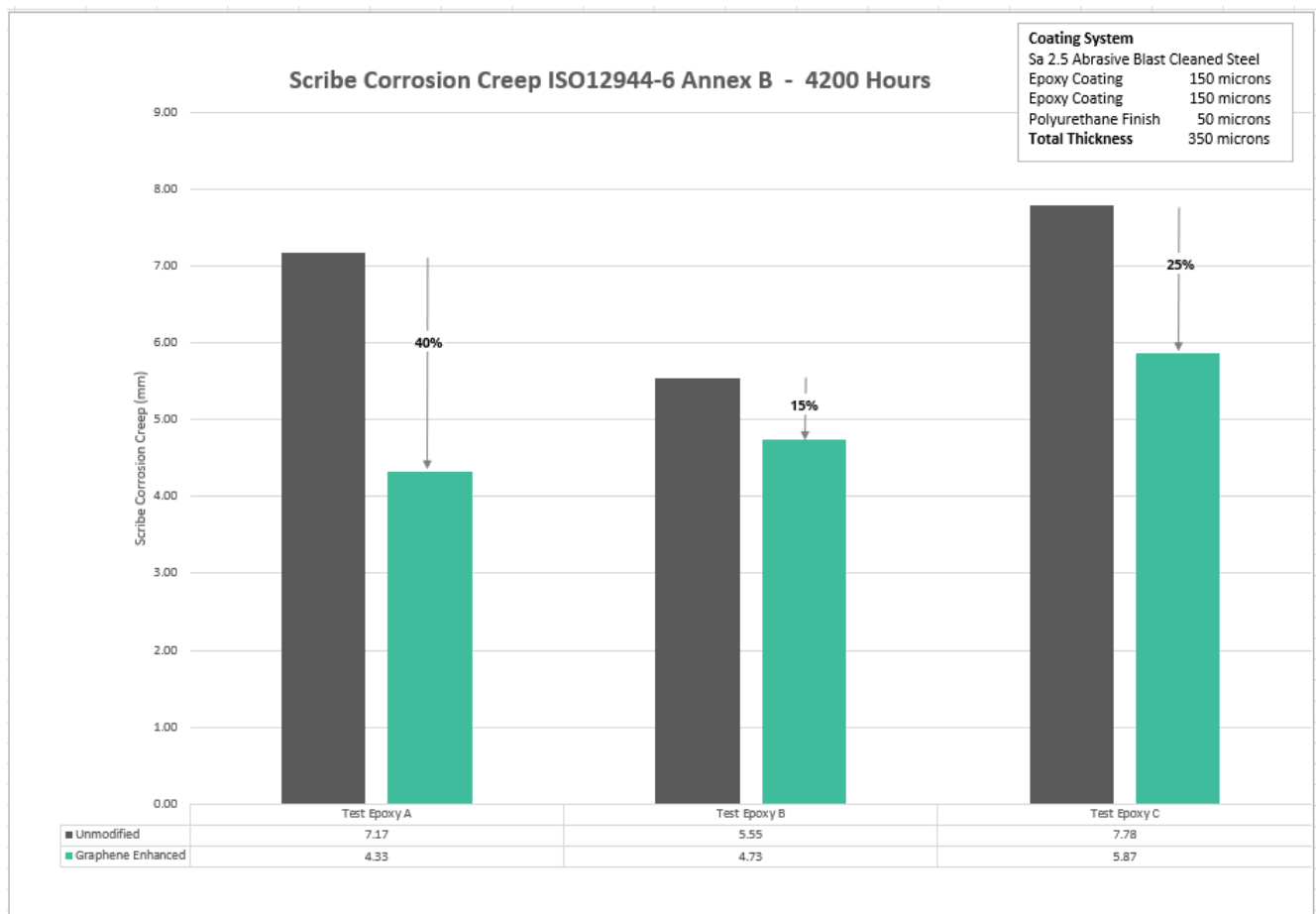


Chart 1: Scribe Corrosion Creep Results – 4200 Hours Cyclic Testing

Note: the 6 month (4,200 hours) test referenced above is designed to simulate high durability performance (15-25 years' service) in severe offshore environments, e.g., offshore oil platforms, wind towers and bridges.

Commercialisation:

In support of the pending Commercialisation of graphene based additives, Sparc Technologies' products intended for the P&M Coatings market will carry the "ecosparc Graphene Enhanced" branding.



Sparc Industrial Materials Manager, Andrew Smith, commented:

"The commitment to product development and testing for Coatings is also being applied to our all of our research activities. Our objective is to be in a position to clearly communicate to our Customers that we have products where performance can be demonstrated to recognised industry standards. After much research we understand what to look for when selecting a grade of graphene for our additives. We therefore welcome any opportunity to work collaboratively with Customers, operating within the Industrial Materials sector, seeking to enhance product performance."

-ENDS-

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About Sparc Technologies

Sparc Technologies Limited (ASX: SPN) is a South Australian based company that, as part of its product development portfolio, is focused on the development of innovative technology solutions using the unique properties of graphene. Graphene is a 2-dimensional nano material made of carbon atoms arranged in a hexagonal pattern, giving it a unique array of powerful properties. When understood, these properties can be harnessed and used to develop graphene based products for targeted end uses. Sparc Technologies is focused on commercialising graphene-based technologies for the Industrial Market sector (Coatings, Composites & Concrete), Environmental Remediation and Bio-medical applications.

Sparc Technologies, with its partner The University of Adelaide, is developing a process to deliver Ultra Green Hydrogen. This unique process does not rely on renewable energy or electrolysis but will be driven by a disruptive technology known as water-splitting by photocatalysis. A JV with The University of Adelaide has been established to deliver this project