

Sparc TECHNOLOGIES graphene enhanced coatings have the potential to enhance billion dollar markets

## Graphene and Coatings <sup>1</sup>

- ▶ Graphene as a performance additive in marine, aerospace and industrial applications of coatings
- ▶ Graphene's unique features provide added benefit to coatings;
  - ✓ **Unique anti-corrosion qualities**
  - ✓ **Improved drag efficiency**
  - ✓ **Anti-microbial benefits**
  - ✓ Superior hydrophobic qualities
  - ✓ Chemical repulsion
  - ✓ Exceptional UV protection
  - ✓ Fire-resistance
  - ✓ Improved electrical and thermal conductivity
- ▶ SPN has exclusive access to patented technology to enable targeting of the above markets globally



SCROLL



### Andrew Smith

Technical Manager - Coatings



Andrew is a development chemist specialising in Heavy Duty Coatings, specifically, the development and testing of anti-corrosive coatings. Andrew has held senior regional technical management roles for AkzoNobel (world leader in coatings with brands including International, Chartek, Sikkens, Awlgrip, Devoe), in Australia, Asia and the Americas.

These roles involved responsibility for product development, testing and integrity, as well as Technical Support functions. Andrew most recently has been involved in implementing major restructuring initiatives for AkzoNobel, including rationalisation of manufacturing capability in the South Asia region.

# Coating Industries - SPARC Product Performance

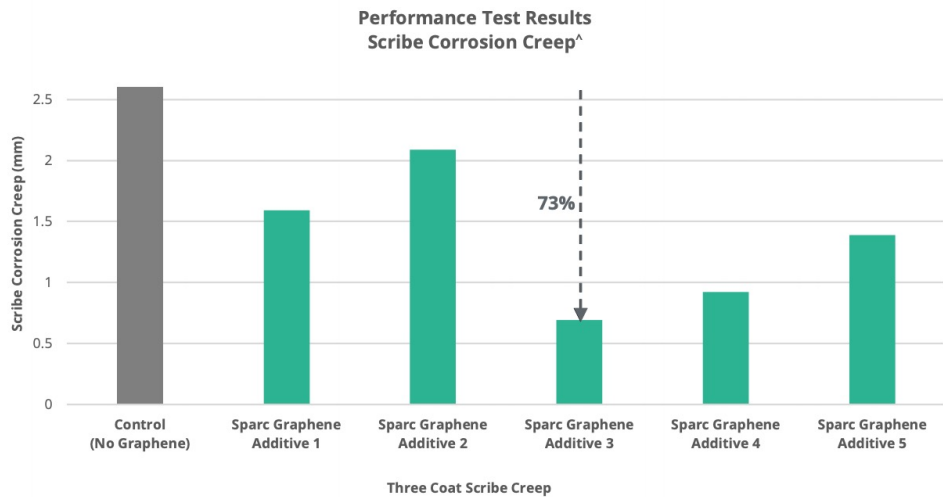


- ▶ SPARC Graphene enhanced coating performs with a **73% improvement\*** on industry standard coatings

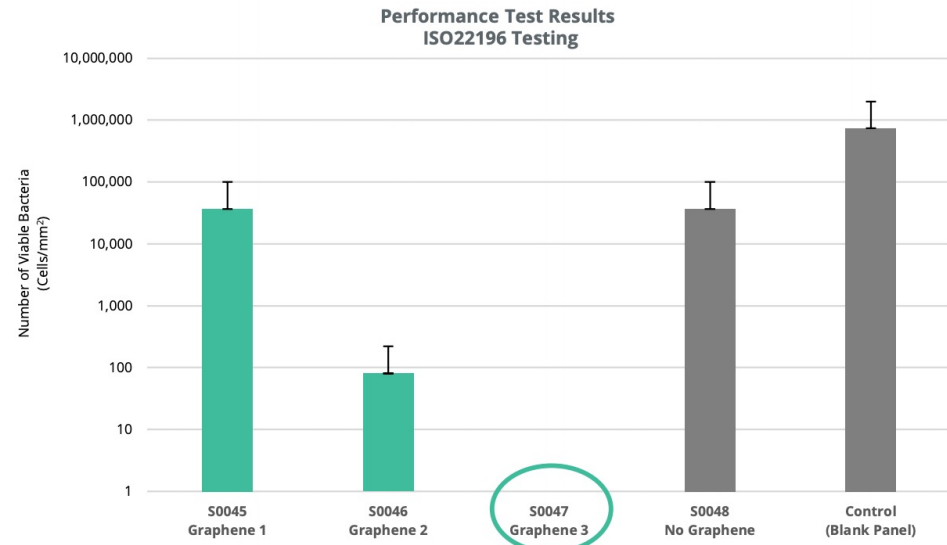
SPARC enhanced coating has demonstrated the potential to improve the performance of a low cost commodity product with the addition of a Graphene based additive.

- ▶ SPARC Graphene enhanced coating showed **complete destruction of the E-Coli bacteria** when compared to the same coating type containing no graphene.

SPARC enhanced coatings have potential applications in areas for the control of bacterial growth on surfaces such as; hospitals, public areas, food preparation facilities, drinking water systems, antifouling for shipping and coating for wastewater systems.



Test results showing anti-corrosion performance of coatings with a Sparc Graphene additive. Lower values demonstrate better performance



Testwork included multiple coatings containing proprietary graphene formulations. Coating with Graphene 3 formulation, Sample S0047, demonstrated the most significant improvement to the destruction of E-Coli.