

ASX RELEASE

19th April 2023

ASX: NVU

Nanoshield™ W Series Successfully Tested for Marine Antifouling Applications

Nanoveu Limited (“**Nanoveu**” or the “**Company**”) (**ASX: NVU**), a company specialising in protective films and coatings, has successfully tested its W-series Solar Coating for marine antifouling applications.

Antifouling refers to measures or substances used to prevent the growth of aquatic organisms such as algae, barnacles, and mussels on the hulls of ships, boats and other structures that are submerged in water.

Highlights

- **Nanoshield™ W Series has been successfully tested by Nanoveu for antifouling applications, to be referred to as Nanoshield™ Marine**
- **The global antifouling coatings market is projected to grow to US\$3.9 billion by 2030, CAGR 4.95%¹**
- **Further testing currently underway in Australia and Singapore by Nanoveu to validate the product in warm-water and fresh-water environments**
- **Nanoveu is preparing a worldwide patent covering the unique antifouling/antimicrobial activity of the W Series coating**

Nanoveu is pleased to advise that the antifouling capability of Nanoshield™ Marine has been successfully tested in the United States. The Product shares the same chemical structure as the W Series coating within the recently announced Nanoshield™ Solar product range (see ASX announcement 21 February 2023).

On 21 February 2023, the Company commented that it believes that in addition to the initial solar panel market, the product’s antifouling capability may be applicable to a wider range of applications including ships and boat hulls that constantly require antifouling treatment as organism growth can greatly affect durability and performance. This includes oil platforms, where algae growth compromises the integrity of the platforms over time.

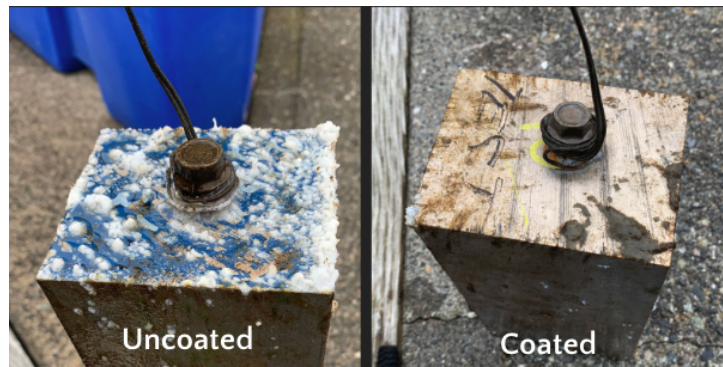
Nanoveu concluded a 30-day preliminary test to determine the effectiveness of Nanoshield™ Marine coating for preventing algae and oxidation on aluminium surfaces in salt water.

¹ <https://www.globenewswire.com/en/news-release/2022/11/15/2555832/0/en/Antifouling-Coatings-Market-Worth-USD-3-9-Billion-by-2030-Witnessing-a-CAGR-of-4-95-Report-by-Market-Research-Future-MRFR.html>

Antifouling Test

Testing was conducted in Port Angeles, Washington State, USA by Nanoveu to assess the effectiveness of its antifouling coating in a marine environment. Two identical solid aluminium blocks measuring ~450 x 100 mm were used. One block was coated with Nanoshield™ Marine, and the second block was left uncoated.

The blocks were suspended in 7.2° - 8.9°C water at a depth of 1 metre for 30 days.



A marked difference in the extent and severity of mould, algae and oxidation on the untreated block was observed, as compared to the block coated with Nanoshield™ Marine. The Nanoshield™ Marine coating provides an economic and effective alternative to expensive epoxy coating for preventing mould, algae, and oxidation on vessels and marine structures.

Next Steps

Nanoveu plans to expand the testing and demonstration of Nanoshield™ Marine coating in Australia and Singapore to further validate the effectiveness of the product on other materials such as fiberglass and steel.

Commenting on development of Nanoshield™ Marine, Alfred Chong, Managing Director, and CEO of Nanoveu said: “Our innovative and eco-friendly antifouling coating provides a cost-effective and sustainable solution to prevent fouling and increase the lifespan of boats and other underwater structures.”

Background

Ships travel faster through water and consume less fuel when their hulls are clean and smooth – free from fouling organisms, such as barnacles, algae, or molluscs.²

Vessel bottoms not protected by antifouling systems may gather 150 kg of fouling per square metre in less than six months of being at sea.³

Just a small amount of fouling can lead to an increase of fuel consumption of up to 40%, and possibly as much as 50%, since the resistance to movement will be increased. A clean ship can sail faster and with less energy.⁴

Antifouling Coatings Market

To prevent the growth of marine biofouling, boats often have an antifouling coating put to their hulls. For economic and environmental reasons, biofouling is a problem for the transportation sector. Due to biofouling, the hydrodynamic performance of a boat degrades, leading to wasted energy, increased fuel consumption, and additional costs. The global antifouling coatings market is projected to grow to US\$3.9 billion by 2030, CAGR 4.95%.⁵

This announcement has been authorised for release by the Board of Directors

² <https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/FOULING2003.pdf>

³ <https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/FOULING2003.pdf>

⁴ <https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/FOULING2003.pdf>

⁵ <https://www.globenewswire.com/en/news-release/2022/11/15/2555832/0/en/Antifouling-Coatings-Market-Worth-USD-3-9-Billion-by-2030-Witnessing-a-CAGR-of-4-95-Report-by-Market-Research-Future-MRFR.html>

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About Nanoveu Limited

Nanoveu is a company specialising in protective films and coatings. <https://www.nanoveu.com/>

Nanoshield™ - is a film which uses a patented polymer of Cuprous embedded film to self-disinfect surfaces. NanoShield antiviral protection which is available in a variety of shapes and forms, from mobile screen covers, to mobile phone cases and as a PVC commercial film, capable of being applied to a number of surfaces such as doorhandles and push panels. The perfectly clear plastic film contains a layer of charged copper nanoparticles which have antiviral and antimicrobial properties. This technology is also being applied to fabric applications targeting use in the personal protective equipment sector.

Nanoshield™ Solar is designed to solve a major issue for solar panels, being reduction of power output from panel surface debris.

Nanoshield™ Marine prevents the accumulation and growth of aquatic organisms such as algae, barnacles, and mussels on the hulls of ships, boats and other structures that are submerged in water.

EyeFly3D™ - is a film applied to digital displays that allowed users to experience 3D without the need for glasses on everyday mobile handheld devices.

Customskins - are vending machines capable of precisely applying screen covers to mobile phones with an alignment accuracy of 150 microns.

EyeFyx - currently in research and development stage, EyeFyx is a vision correction solution using hardware and software to manipulate screen output addressing long-sightedness without the need to wear reading glasses.

Forward Looking Statements

Statements regarding plans with respect to Nanoveu's projects and products are forward looking statements. There can be no assurance that Nanoveu's plans for its projects or products will proceed as expected and there can be no assurance of future sales.