

# SUSTAINABLE GRAPHENE-BASED MARINE COATINGS

Industrial Motors

Commercial & Appliance  
Motors

Automation

Digital & Systems

Energy

Transmission &  
Distribution

**Coatings**

Reduce fuel consumption and protect the environment with **GIT's biocide-free** hard foul release hull and propeller coatings while **decarbonizing your fleet.**



Driving efficiency and sustainability





# Environmentally friendly sustainable solution

Enhance vessel performance with sustainable graphene-based marine coatings

- Ultra-low VOC (3%)\*;
- Does not leach biocides, coppers or silicone oils;
- Safer for the applicator.

\*VOC stands for volatile organic compounds.



## XGIT-FUEL



### BOOST FUEL SAVINGS. REDUCE EMISSIONS.

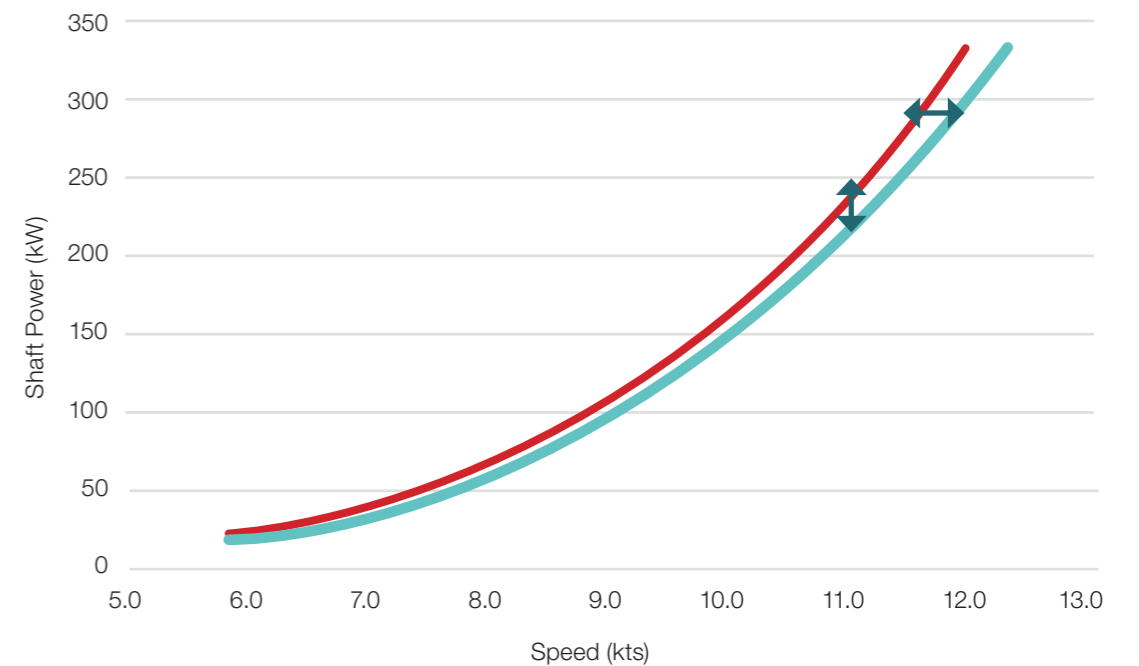
XGIT-FUEL is a graphene-based hard foul release hull coating that creates an ultra-low friction surface to increase vessel performance, and its amphiphilic technology secures a hydrated layer that deters the settlement and attachment of hard and soft species.

XGIT-FUEL provides outstanding fuel savings and CII rating improvement by **using only a single layer of paint above the primer.**

### 10,4% SHAFT POWER REDUCTION AND 3,7% SPEED GAIN

- Verified by Lloyd's Register according to ISO 15016:2015;
- Consistent results at different speeds after eight months;
- Compared to clean abrasion resistant epoxy coating.

### Shaft Power over Speed



— Power (pre-retrofit / Nov 2021)

— Power (post-retrofit / May 2022)



*I'm very pleased that Lloyd's Register was able to provide independent testing and verification to GIT.*

**Kevin Humphreys** Lloyd's Register Marine and Offshore, America's Former President





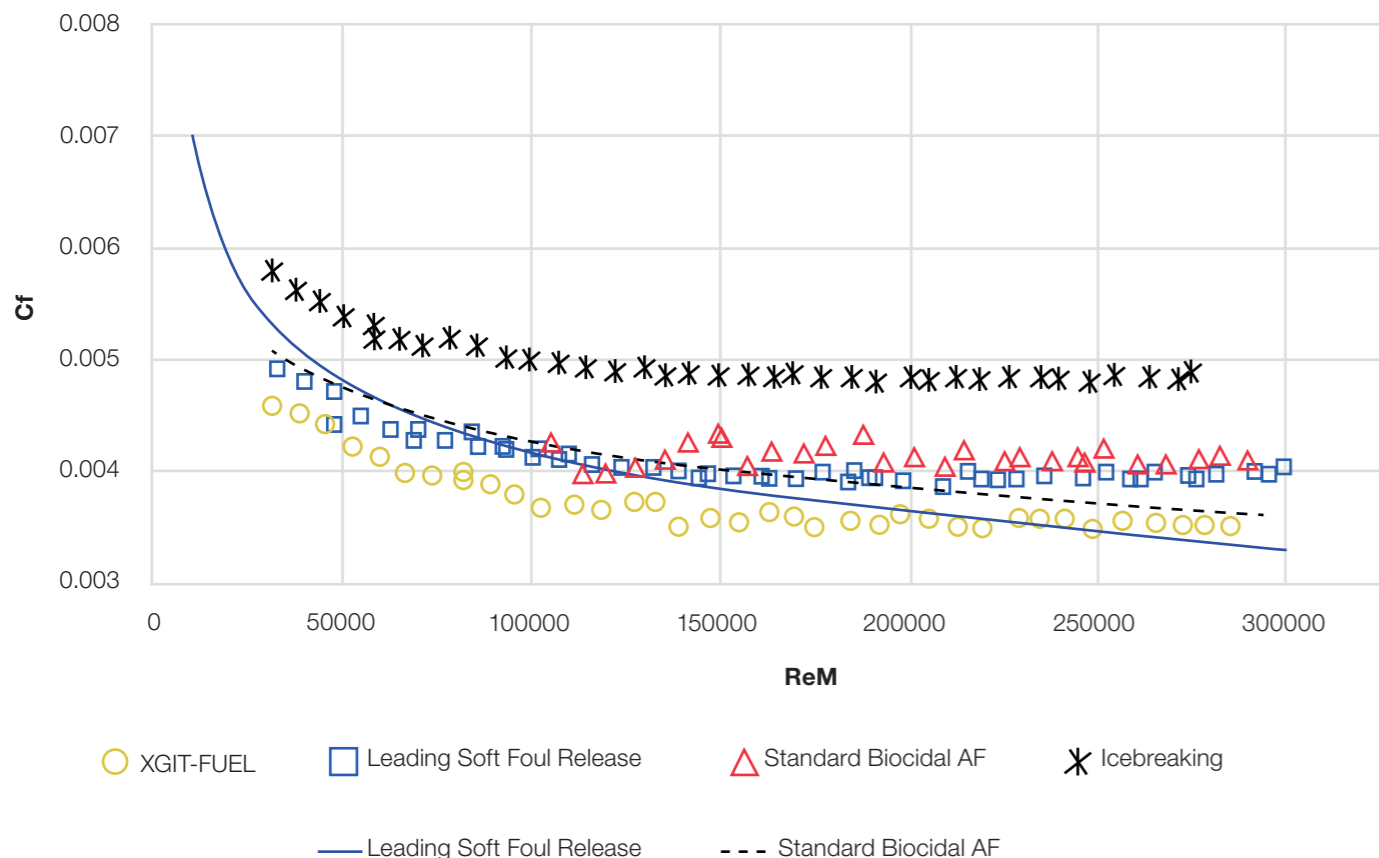
**XGIT-FUEL**

**ULTRA-LOW FRICTION. RETHINKING SURFACE SMOOTHNESS**

**XGIT-FUEL** outperforms leading marine coatings with the smoothest surface profile. Our ultra low-friction **XGIT®** coatings systems have been extensively tested by leading third-party research labs around the world and the results are making the global marine transportation sector take notice.

Independently tested at the **Kelvin Hydrodynamics Laboratory at the University of Strathclyde**, **XGIT-FUEL** was proven to have a high-performing low-friction surface profile.

Creating up to 15% less drag than leading marine coatings, **XGIT-FUEL can unlock long-term savings for global shipping fleets.**



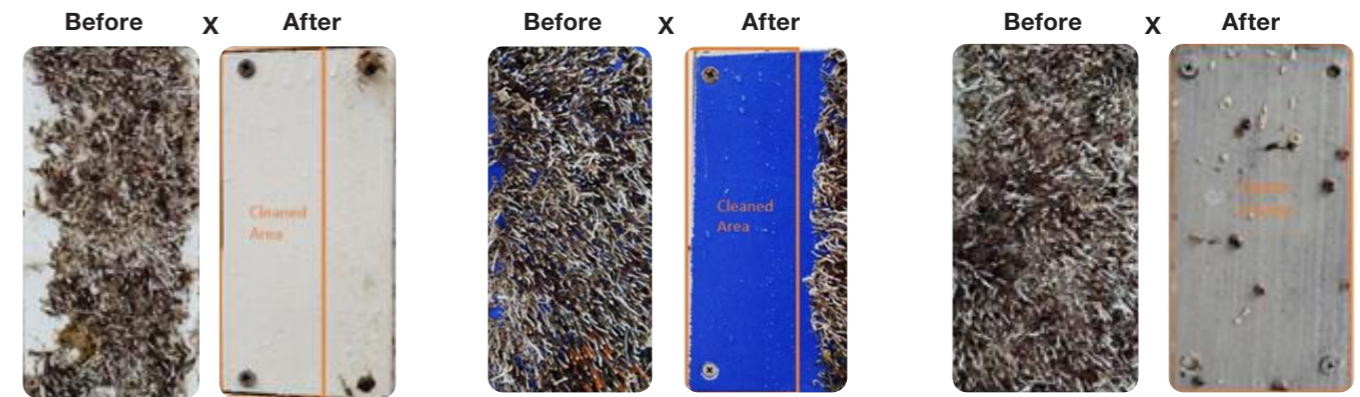
**XGIT-FUEL**

**SUPERIOR FOUL RELEASE PERFORMANCE. FOUR TIMES STRONGER THAN SILICONE-BASED COATINGS.**

**GIT Coatings** has partnered with the Center For Corrosion And Biofouling Control at Florida Tech to independently evaluate the effectiveness of underwater grooming on marine paints.

**XGIT-FUEL hard amphiphile technology showed the best performance among silicone-foul release coatings and showed very easy to clean properties combined with a surface hardness** that can withstand underwater cleaning activities without coating damage. This shows the ability of the coating to maintain its fuel savings.

*Idle time of XGIT-FUEL is 30 days in tropical waters, after which it is suggested to move the vessel.*



**XGIT-FUEL**

- Complete fouling removal;
- Coating damage-free;
- **Note:** Bulk of adjacent fouling was also removed indicating low adhesion.

**LEADING SOFT FOUL RELEASE**

- Complete fouling removal;
- Coating damage-free;
- **Note:** Leftover biofouling adjacent to cleaned area indicate adhesion.

**ICEBREAKING COATING**

- Complete fouling removal;
- Coating damage-free;
- **Note:** Bulk of deep rooted barnacles remained after cleaning.



2x zoom in comparison shows damage (microplastics) on silicone-based coating due to cleaning with nylon brushes.

**XGIT-FUEL 18-MONTH INSPECTION**

Even after extensive in-service work and extended idle days of vessels operating in Canadian waters, XGIT-FUEL displayed an outstanding performance in effectively managing biofouling growth and withstanding sailing in ice. The underwater inspection proved there was no growth, slime or DFT loss on the surface after the first 18 months of service.

**XGIT-PROP**

CONSTANTLY HIGH PERFORMING PROPELLER.

XGIT-PROP is a highly durable graphene-based propeller coating that significantly improves vessel performance and protects marine propellers from cavitation over a long period of time. This coating has excellent foul release properties, and it creates an ultra-low friction surface to maximize propeller efficiency.

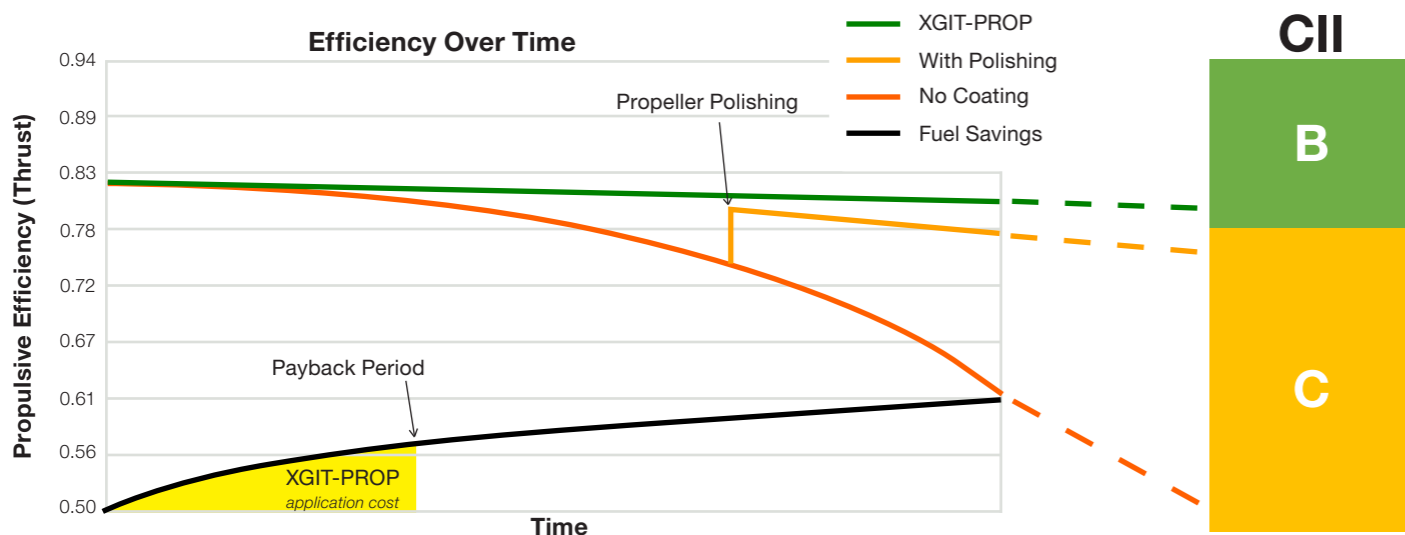
XGIT-PROP was developed based on the shortfalls of other propeller coatings, including weak attachment strength to propeller substrates.

It is easily applied as a three-coat system within one day and if needed, it can be groomed without damaging the surface.



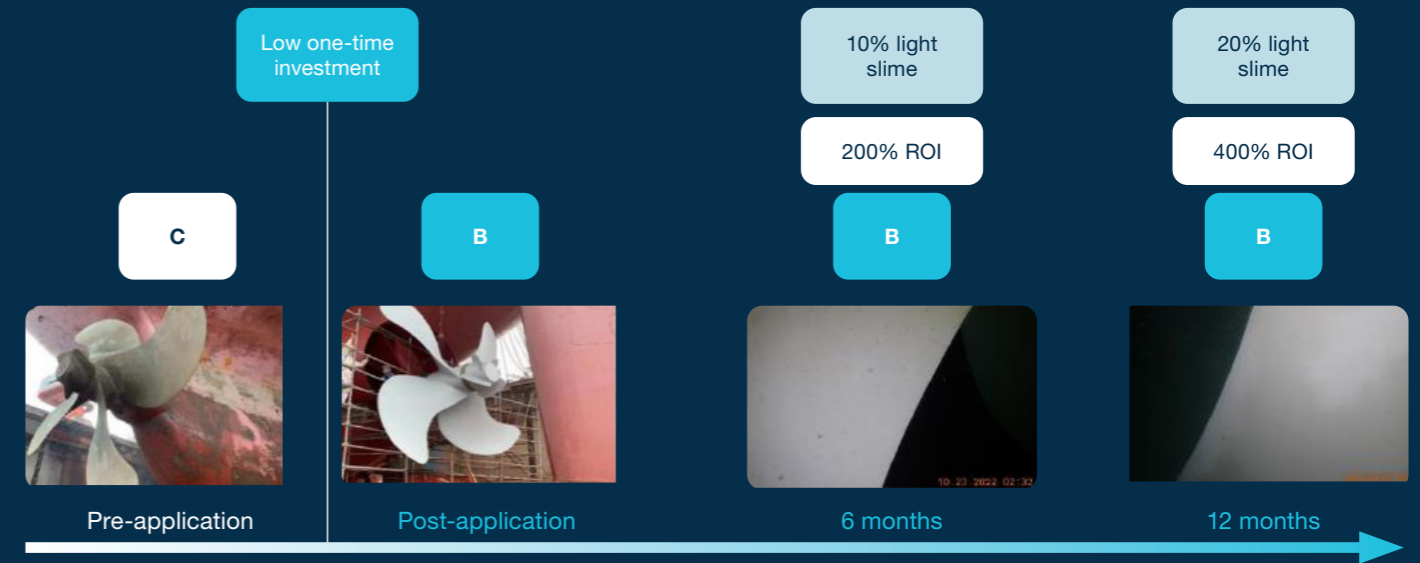
- ✓ Up to 4% fuel reduction;
- ✓ Ultra-low friction surface;
- ✓ Highly durable material;
- ✓ Superior fouling release;
- ✓ Environmentally friendly.

XGIT-PROP keeps the propeller continuously smooth and efficient.

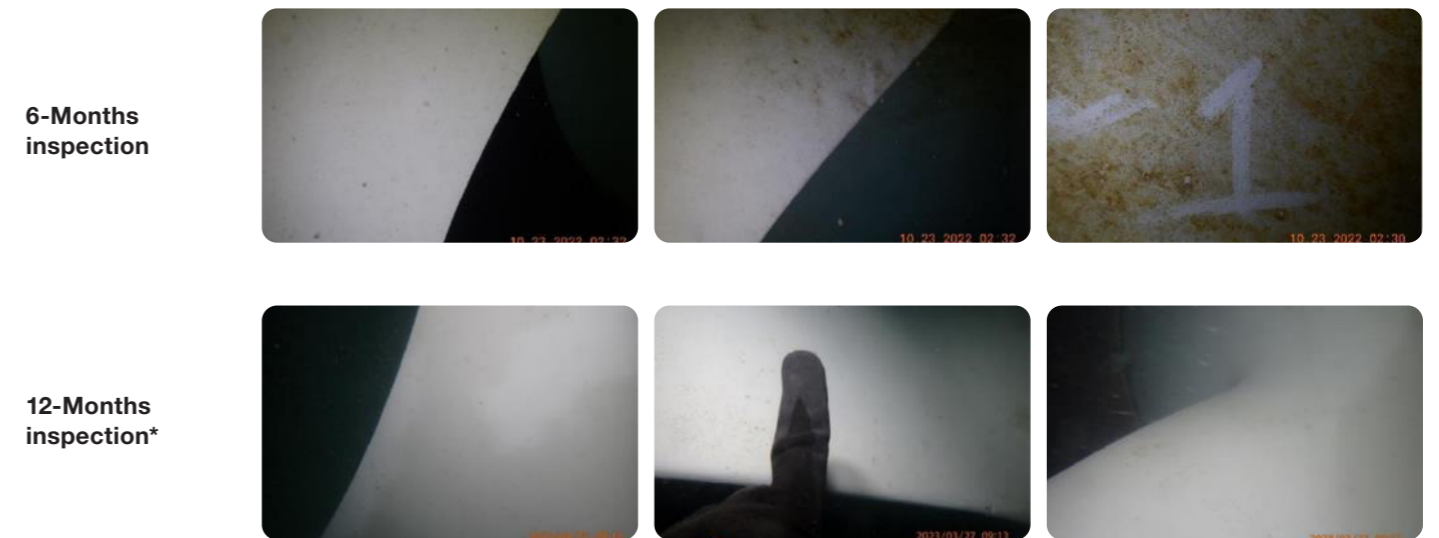


**XGIT-PROP**

ONE OF THE MOST EFFICIENT WAY TO IMPROVE AND MAINTAIN CII RATING



EASY TO CLEAN. NO POLISHING REQUIRED



\* Soft Grooming at 12-months

The scope of WEG Group solutions is not limited to the products and solutions presented in this brochure.

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