SEAFLO NEO CF PREMIUM

ULTRA LOW FRICTION, SPECTACULAR PERFORMANCE AGAINST SLIME AND BARNACLES

CMP CHUGOKU

Ultra low friction antifouling providing spectacular performance against slime and barnacles

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The latest high performance anti fouling combining CMP's unique zinc acrylate binder with pharmaceutical technology for spectacular results.

One of the first products to be developed utilising a pharmaceutical agent to cope with the challenge of barnacles.

The patented antifouling provides a spectacular antifouling performance in all conditions experienced by a vessel operating worldwide.

New biocide development from pharmaceutical industry

- Spectacular AF performance when static (45days guaranteed*)
- Free from barnacles
- BPR (Biocidal Products Regulation) approved

* Consult CMP

ZERO leach layer

- Very low risk for slime fouling

Ultra low friction and FIR technology

- Fuel saving 5-8% compared with conventional AF
- Analyzed in accordance to ISO 19030
- Expected average speed loss 0.9% for 60 months

Optimized design

- Available for all types of worldwide trading ships
- Applicable on all existing antifoulings
- Excellent resistance to mechanical damages
- Excellent cosmetic appearance

PATENT TECHNOLOGY

CMP CONTINUE TO ADDRESS THE CHALLENGE FOR NEW TECHNOLOGY

CMP believes “Technology” is a key requirement to be a reliable company in terms of both products and service to customers.

CMP’s technologies emanate from the significant cross border studies taking place in several internal departments – from materials analysis to product planning.

The initial phase of the R&D program for SEAFLO NEO CF PREMIUM was focusing upon new biocide technologies and was finalized well over 10 years ago, hence since half way through the last decade over 100 trial applications with the new biocide technologies were continuously carried out on commercial ships and are now resulting in 10 years of ship outturn experience and data providing the confidence to introduce the new products emanating from such technologies.

CMP offer a premium range of antifouling

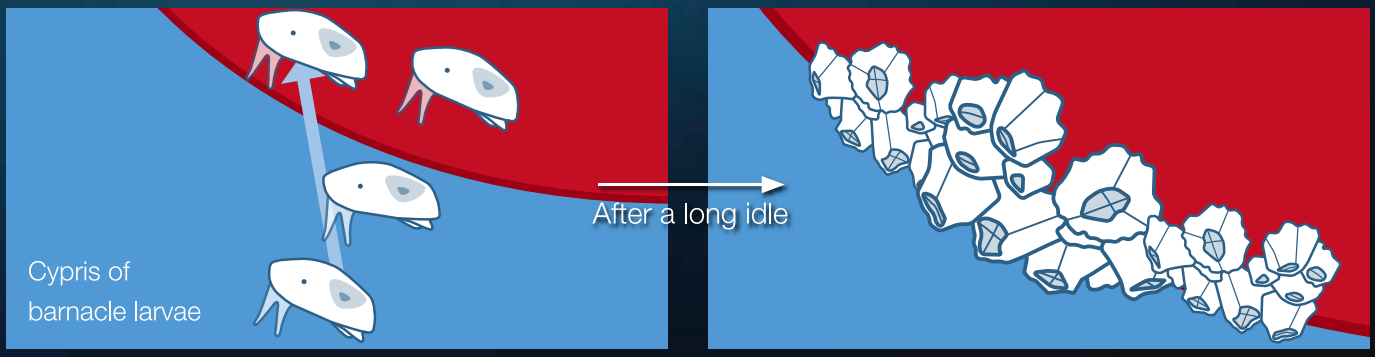
CMP are also active in joint research programs with many institutions and have been launching innovative products which meet environmental requirements.

UTILISATION OF PHARMACEUTICAL TECHNOLOGY

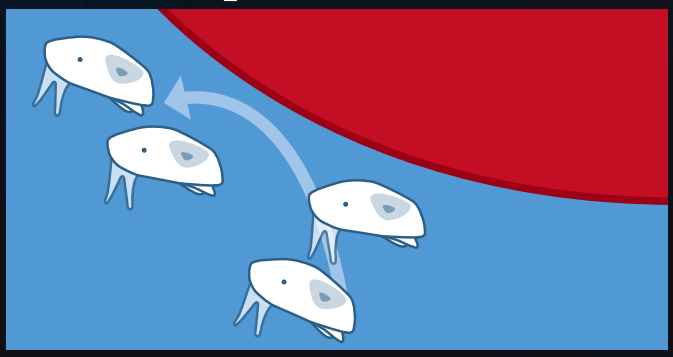
A new biocide from the pharmaceutical industry is utilised in the latest antifouling development and has proven itself on vessels experiencing various types of operation.

MECHANISM OF PREVENTING BARNACLE SETTLEMENT ON THE ANTIFOULING SURFACE

CONVENTIONAL AF



SEAFLO NEO CF PREMIUM



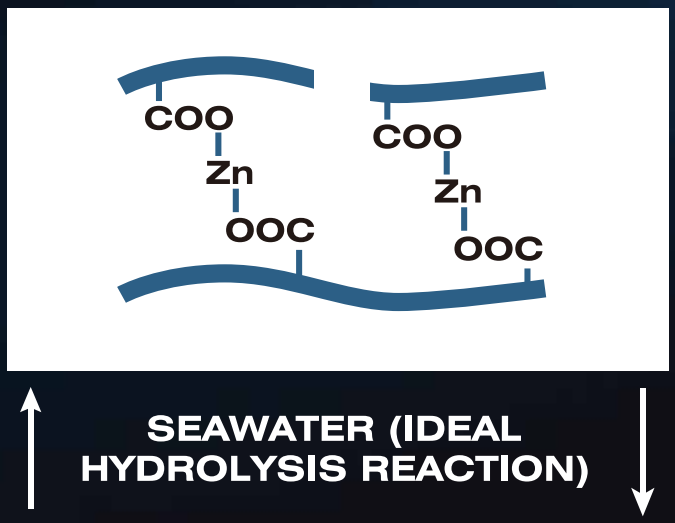
CMP use an agent (used on dogs and cats) which effectively excites the barnacle causing it to move away.

EXCELLENT COSMETIC APPEARANCE WITHOUT DISCOLORATION

CROSSLINKING ZINC ACRYLATE TECHNOLOGY

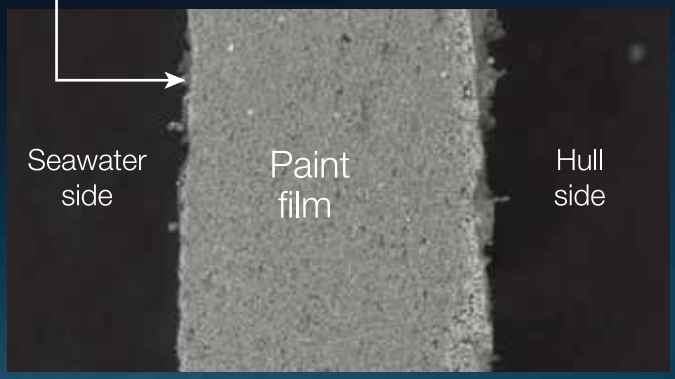
Reversible hydrolysis reaction

All hydrolysis polymers have sites which react with seawater. When the antifouling polymer dissolves, biocides are released and the polymer provides anti-fouling performance. The cross linking polymer (zinc acrylate) is decomposed to small molecular structures, which dissolves smoothly and effectively in seawater. Thus its hydrolysis layer becomes very thin and gives an excellent anti-fouling performance, hence a reversible hydrolysis reaction takes place which provides spectacular antifouling performance in seawater.



CONVENTIONAL AF TYPICAL LEACH LAYER

ZERO LEACH LAYER

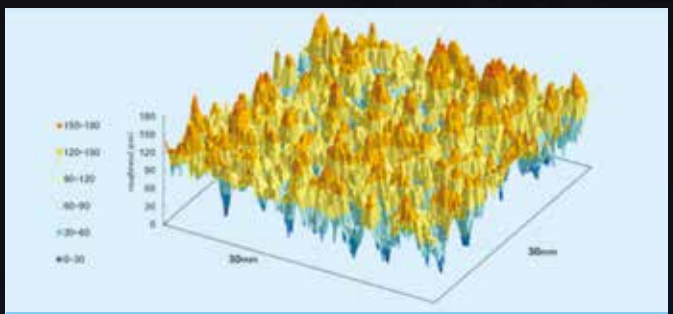


AFTER 17 MONTHS

FUEL SAVING TECHNOLOGY

Ultra smooth surface provides low friction in seawater and contributes to fuel saving during operations. Fuel saving rate is estimated from FIR (Friction Increase Ratio) which is CMP's unique methodology.

CONVENTIONAL AF



FIR:10.7%

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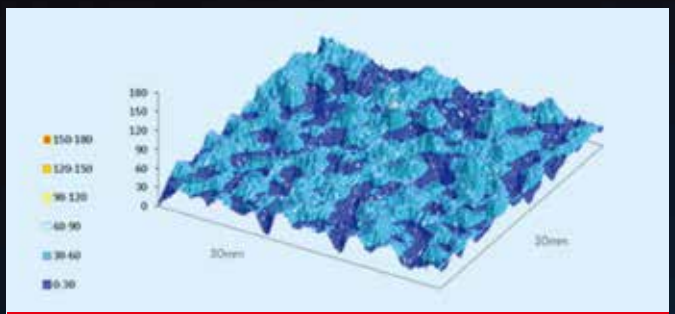
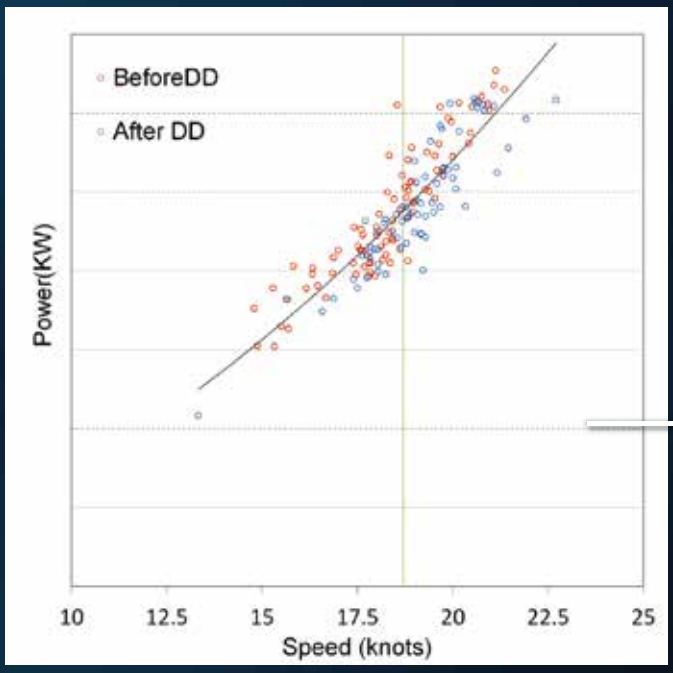


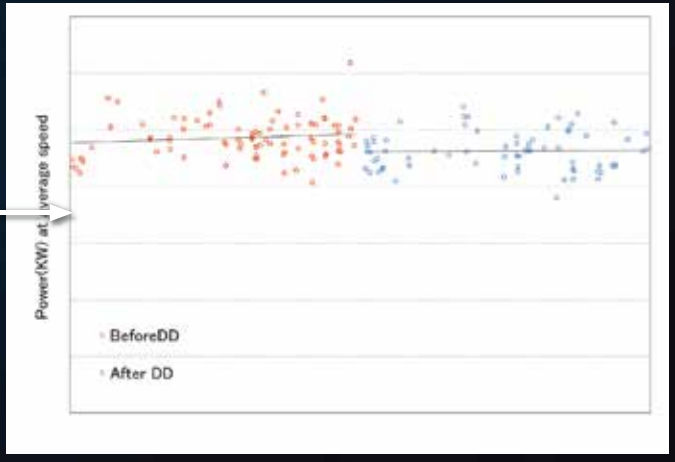
FIR:1.2%

LONG TERM MONITORING OF SURFACE SMOOTHNESS IN THE FIELD

COMPLYING WITH ISO 19030

ISO 19030 is a method to analyse speed and fuel consumption to identify the increase of fuel usage (Power) and speed reduction arising from hull and propeller fouling.





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CHUGOKU

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