



**EXPECT**  
**NOTHING**

**HEMPAGUARD®**

**HEMPEL**





# Greater flexibility, higher energy efficiency

Rising bunkering costs demand new standards of fuel efficiency. Current fouling control solutions can limit trading patterns. Idle periods can involve significant fouling growth.

In spite of attempts by coating suppliers to supplement existing fouling control technologies with new features, none of these offers a durable fuel efficiency solution with fouling-free idle time and sustainable flexibility.

## The quest for nothing

Hempel's research and development teams decided to pursue an entirely new concept that would set the bar way above current standards. Fouling control was no longer enough. Their goal was a solution that effectively defends against fouling by resulting in nothing.

## The reward

HEMPAGUARD® is a new, groundbreaking Fouling Defence solution from Hempel based on patented ActiGuard® technology. HEMPAGUARD® has undergone, and is still subject to rigorous testing in aggressive waters with no visible fouling. Other tests have shown a remarkable absence of fouling on hull areas coated with HEMPAGUARD® compared with the surrounding conventional antifouling coatings.

## Expect nothing

HEMPAGUARD® can help you become more flexible and achieve higher fuel efficiency for the duration of a docking interval. We believe that nothing compares with the HEMPAGUARD® Fouling Defence system and we are backing this with extensive guarantees.

Find out more at [www.hempel.com](http://www.hempel.com)





# HEMPAGUARD®

## EXPECT NOTHING

The HEMPAGUARD® product range offers cost-effective fouling defence coatings for docking intervals up to 90 months. The combination of low friction and effective biocide makes HEMPAGUARD® coatings suitable for any trading pattern as well as idle time for the vertical sides and flat bottom of all ship types.

HEMPAGUARD® may be specified for maintenance and newbuilding. Specially developed tie coats enable overcoating of existing antifouling and fouling release coatings.

Backed by extensive guarantees, HEMPAGUARD® coatings deliver effective fouling defence up to 120 idle days with greater flexibility and significant fuel savings.





# Groundbreaking active hydrogel technology

The secret behind HEMPAGUARD® is ActiGuard®, Hempel's patented and innovative Fouling Defence technology. ActiGuard® integrates hydrogel and biocides in a single coating.

The low friction of silicone combined with the deterrent effect of biocide-activated hydrogel ensures an ultra-smooth hull surface that stays clean longer than even the best conventional fouling control coatings.

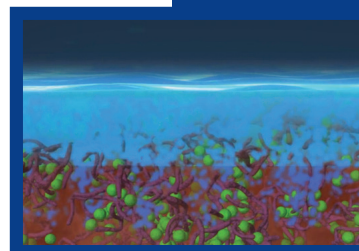
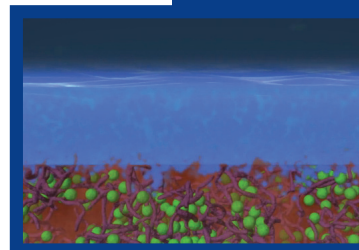
A smart surface retention mechanism allows a much smaller amount of highly effective biocide to efficiently hold biofilm at bay with significantly lower impact on the marine environment.

**Fuel savings of up to 8%**

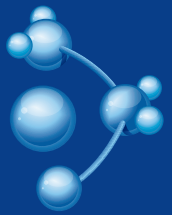
## How it works

Upon immersion of the low-friction silicone-coating, a hydrogel micro-layer forms at the silicone-water interphase, where it acts as a physical Fouling Defence.

Retention of biocide in the hydrogel micro-layer activates the hydrogel with biocides. The biocide-activated hydrogel reinforces the Fouling Defence, significantly extending the fouling-free period and effectively improving fuel efficiency.



NEW  
**ActiGuard®**  
Technology







HEMPEL was founded in 1915 and is today one of the world's leading suppliers of marine and industrial paints. Our 5,000 employees work from 3 main and 7 regional Research and Development centres, and 24 production plants situated in strategic locations across six continents. Our global sales and service organisation operates from more than 150 stock points in over 80 countries, providing our customers with expert assistance at all stages of the contract.

Visit [hempaguard.hempel.com](http://hempaguard.hempel.com) to discover more about our HEMPAGUARD® range and find out which solution best suits your needs.

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