



# JOTUN

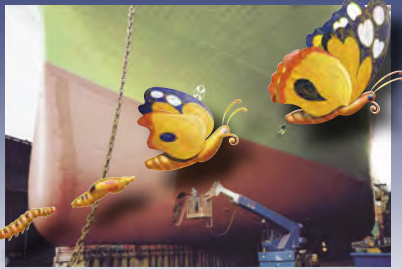
## SeaMate

maintaining speed and schedule



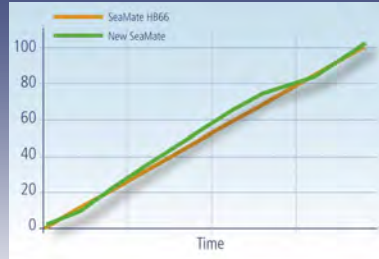
# SeaMate maintaining speed and schedule

The technology from *SeaQuantum* optimised for reliable, long-lasting protection



- Following its introduction in 2000 SeaQuantum has claimed a position as the ultimate in fuel saving and protection from fouling.
- The silyl technology of SeaQuantum has the following key properties
  - Controlled and linear polishing
  - Low build-up of leached layers
  - Better protection against mechanical damage
  - Unrivalled track record on fuel performance
- SeaMate leverages the benefits of the silyl technology in a product optimised for reliable long-lasting protection – helping customers to maintain speed and schedule.

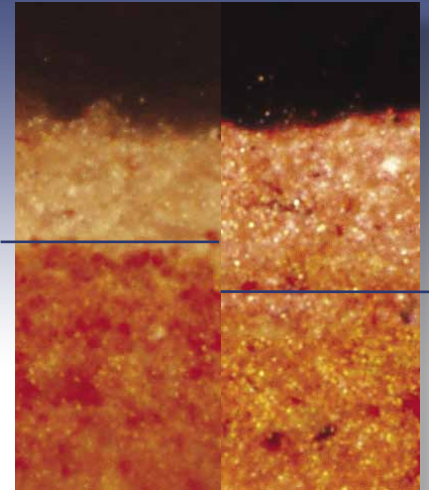
Controlled and linear polishing: the secret behind reliable antifouling performance



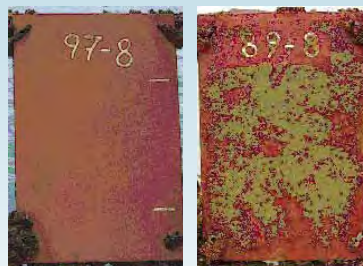
Indexed polishing rate for SeaMate HB66 and *SeaMate*

- SeaMate HB66 built an enviable performance reputation. Its success was the result of the linearity of its polishing.
- Linear polishing contributes to a constant release of biocides – a prerequisite for reliable antifouling performance over the lifetime of the system.
- Parallel testing under controlled dynamic conditions has demonstrated the controlled and linear polishing of this new SeaMate technology.

Low build-up of leached layers enables long-lasting protection



- All antifoulings release biocides causing the formation of a leached layer.
- SeaMate delivers thinner leached layers than competing products.
- SeaMate enables long-lasting protection by balancing the polishing rate and leaching rate of biocides.

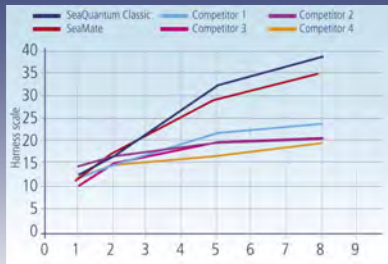


*SeaMate*

Competitor

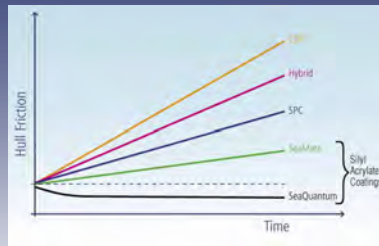
The exceptional protection provided by *SeaMate* is illustrated by the results of a static exposure trial in Malaysia.

Better protection against mechanical damage: reduced risk of unscheduled maintenance



- Silyl technology provides great mechanical strength and shorter drying time.
- Greater mechanical strength reduces the risk of unscheduled maintenance.
- Compared with competing products SeaMate is a significantly harder coating.

Ahead of competition on fuel performance, but not as good as SeaQuantum



Hull Friction development with different technologies

- SeaQuantum – optimised for fuel performance with an unrivalled track record – achieves average hull roughness over time that is unchallenged by any other antifouling.
- SeaMate – optimised for reliable, long lasting protection with most, but not all, SeaQuantum fuel performance benefits – its SeaQuantum based technology combines with thin leached layer to contribute toward fuel saving.
- Silyl Acrylate Coatings – state of the art antifouling technology currently dominated by SeaQuantum – a more predictable hydrolysis function than ordinary SPCs with hydrolysis by ion exchange.

maintaining speed and schedule

60 months protection with just 2 coats



- SeaMate's volume solids are 55%, and can be applied in three coats of up to 175µm DFT each to provide reliable protection for 90 month drydocking schedules.
- The benefit is shorter time in drydock and reduced paint application cost.



# Jotun's antifouling range

## Delivering on promises – earning your trust

The introduction of SeaMate strengthens Jotun's claim to fully understand the needs of owners, operators and yards.

### *SeaQuantum*

the ultimate fuel saver

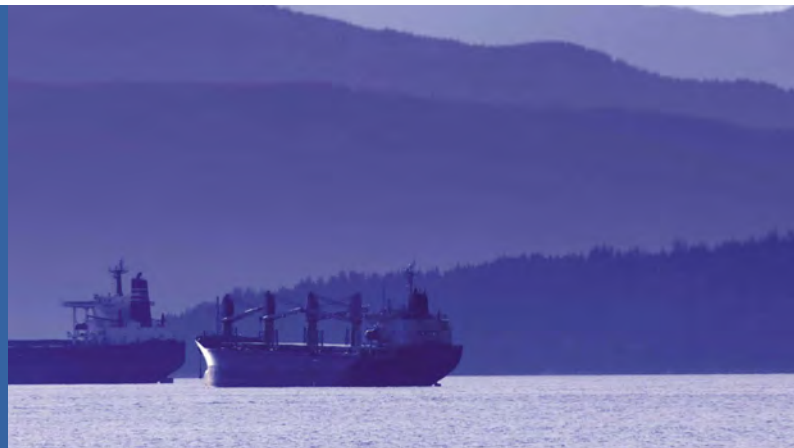
- Unrivalled fuel saving performance
- Unrivalled fouling protection
- Truly selfpolishing and selfsmoothing
- Delivers actual reduction in hull roughness
- No build-up of leached layers
- World leading antifouling technology



### *SeaMate*

maintaining speed and schedule

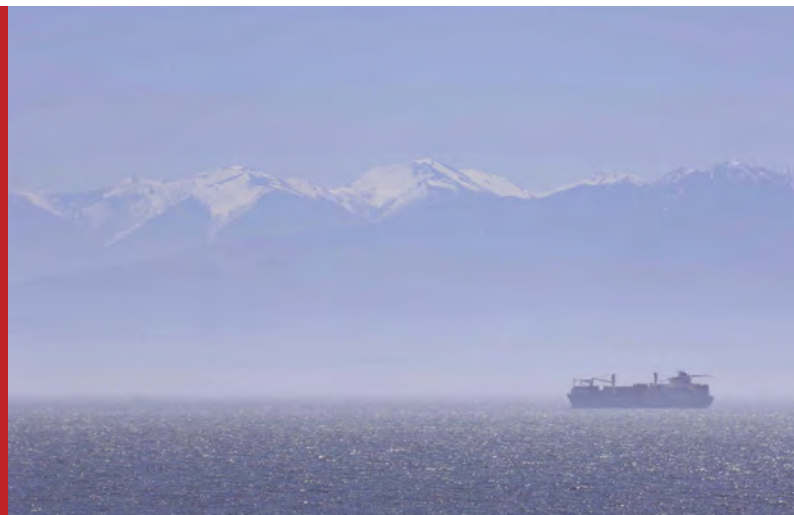
- Based on Silyl Acrylate – the best binder technology on the market
- Low leached layer – the smoothest alternative to SeaQuantum
- Linear polishing matching previous SeaMate
- A harder finish than any competing antifouling
- 60 months service from 2 coat system
- Approved for up to 90 months



### *SeaForce*

efficient fouling protection

- Outperforms other antifoulings in its class
- Economical protection with predictable performance
- Linear and predictable polishing rate
- In some cases up to 60 months good antifouling performance



# The benefits of investing in performance

The choice of antifouling can have a huge business impact for owner or operators.

Maintaining speed > Avoid claims



## SPEED CLAIM – EXAMPLE

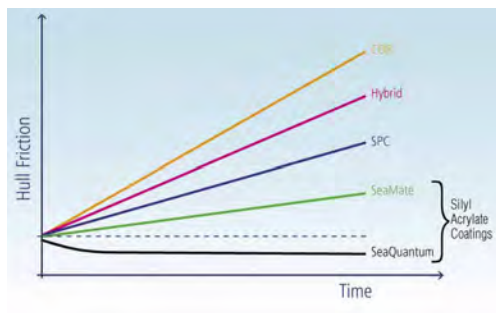
|                            |      |        |
|----------------------------|------|--------|
| Trading days lost per year |      | 1      |
| Average day rate           | US\$ | 51,000 |
| Cost per year              | US\$ | 51,000 |

|                 |       |   |
|-----------------|-------|---|
| System lifetime | Years | 5 |
|-----------------|-------|---|

### Increase in cost over

|                           |      |         |
|---------------------------|------|---------|
| <u>lifetime of system</u> | US\$ | 255,000 |
|---------------------------|------|---------|

Maintaining fuel performance > Avoiding increase in fuel cost



## FUEL PERFORMANCE – EXAMPLE

Average increase in fuel consumption 1%

|                               |      |            |
|-------------------------------|------|------------|
| Baseline fuel cost per year*  | US\$ | 10,725,000 |
| Additional fuel cost per year | US\$ | 107,250    |

|                 |       |   |
|-----------------|-------|---|
| System lifetime | Years | 5 |
|-----------------|-------|---|

### Increase in cost over

|                           |      |         |
|---------------------------|------|---------|
| <u>lifetime of system</u> | US\$ | 536,250 |
|---------------------------|------|---------|

\* 275 trading days, 60 tons per day, US\$ 650 per ton

maintaining speed and schedule



# Jotun worldwide

Jotun Coatings and Jotun Paints  
Division of Jotun A/S  
Legal Jotun entities world wide are  
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