

Case Global Mercy

Fouling protection during extensive static periods



GLOBAL MERCY

Outstanding static performance
during outfitting.

In May 2021, after several years of construction at the Tianjin Xingang shipyard in northern China, the world's largest civilian hospital-ship, *Global Mercy*™, completed its Sea Trial with good results.

To protect the vessel from harsh fouling conditions during predicted long periods of idling, the vessel was coated by a premium antifouling coating containing Selektope.

Fouling-free

After 8 months of outfitting in the shipyard, exposed to high risk of fouling, the vessel hull was free from growth by barnacles.

Global Mercy

- **Type:**
Passenger ship
- **Name:**
GLOBAL MERCY
(IMO: 9726499)
- **Size:**
37 000 GR Tonne
174 m.
- **Painted:**
September 2020
- **Painted with:**
Jotun, SEAQUANTUM
PRO ACE
- **Shipyard:**
Tianjin Xingang, China

Selected by Stena RoRo

The contract to build Global Mercy was awarded to the Xingang shipyard in Tianjin, China in 2014, with Stena RoRo appointed by Mercy Ships as project manager. When considering the hull coating for the Global Mercy, Stena RoRo selected an antifouling coating containing Selektope® that would protect the hull from hard fouling during its extensive static periods. In support of the charity's vital work, I-Tech AB has donated the required volumes of Selektope® to Mercy Ships.

Per Westling, Managing Director of Stena RoRo says:

"Stena RoRo is extremely proud to be involved in the building of Global Mercy and to manage the production process. We identified Selektope® as the most suitable, innovative technology to ensure that the hull of this new hospital ship does not suffer from the negative effects of barnacle fouling, even when idling for many months."





High fouling pressure

In the spring of 2022, Global Mercy is scheduled to set off for its' first mission to the west coast of Africa. For any ship spending time moored or at anchor for extended periods, the risk of barnacle colonisation on the hull is very high. The nature of the voluntary aid Mercy Ships provides means that its hospital ships are often stationary in ports with warm water temperatures for up to 10 months. This means that barnacle fouling could be a costly nuisance for Mercy Ships, both due to increased fuel costs when the hospital ship is sailing between ports, in addition to costs associated with drydocking the ship to mechanically remove hard fouling, if required.

Powered by Selektope

To ensure the hull is protected against barnacles during high fouling pressure, in September 2020, the under-water hull sections were coated by two layers of Jotun's SEAQUANTUM PRO ACE. Thereafter, the vessel spent eight months in static conditions in outfitting, where the antifouling coating was put to test. During the dry-dock inspection in May 2021, before its final delivery, some fouling was found on propellers, but the vessel's hull was completely free from barnacles.



Coated surfaces after 8 months in outfitting, free from biofouling.



The propeller had some fouling, but the coated hull was completely free from barnacles.

"Mercy Ships has, of course, an extensive sustainability profile, and I-Tech's donation in support of our assignment further contributes to being able to carry out our work in a more sustainable way. The use of the latest technological innovations to protect Global Mercy against fouling during static conditions is of great importance to us."

- Stefan Soneson, National Director. Mercy Ships Sweden.

Mercy Ships



Mercy Ships is a global charitable organisation whose volunteers provide medical treatment and undertake urgent operations onboard hospital ships docked at local ports in some of the poorest countries in the world. The charity, which has helped people in need for over 40 years, operates onboard the converted passenger ship, Africa Mercy. During 2021, a new, purpose-built hospital ship, Global Mercy, will enter into active service and more than double their capacity to provide help those in need. Global Mercy will operate and provide health-care along the coast of Africa. It is a unique vessel equipped with 6 operating rooms, 102 emergency care beds and 90 self-care beds. Onboard there are also state-of-the-art training facilities, including a VR and AR-supported simulation laboratory for surgeons. The ship accommodates a crew of up to 641 volunteers and treats around 2,500 patients during a ten-month period in port. Due to its planned extensive static periods in warm waters, the vessel is at high risk of marine growth on the hull.

Contact:

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If you would like an in-person presentation about I-Tech and Selektope, contact us to schedule a meeting.



I-Tech is a global biotechnology company operating in the marine paint industry. The company has developed and commercialised the product, Selektope. With Selektope, I-Tech is uniquely the first company to ever apply principles from biotechnology research in the marine paint industry to keep ship hulls free from marine fouling.



Selektope is an organic, metal-free active agent added to marine anti-fouling paints to prevent barnacles from settling on coated surfaces by temporarily activating the swimming behaviour of barnacle larvae. This bio-repellent effect makes Selektope the only type of technology of its kind available to the marine paint manufacturers.