Synavax
sustainability accelerated

Sustainability Simplified.™
very Simple.

CASE STUDY

Container Vessel, with 3,725 TEU capacity

Award Winning Energy Saving and Asset Protection Coatings

INDUSTRY:
Maritime/Ocean Shipping

ISSUE:

Lower fuel costs and carbon emissions for container vessel while also providing corrosion resistant insulation for the heavy fuel oil (HFO) system.

SOLUTION:

Synavax High Heat thermal insulation & corrosion prevention coating.

Coverage: 6-coats
Dry film thickness: 200 microns

RESULTS:

- ✓ Lowered HFO heating costs by 30%.
- ✓ Slowed down heat flux from HFO tanks to wing and double-bottom tanks.
- ✓ Prevented corrosion under insulation (CUI)
- ✓ Reduced diesel fuel use by 360 liters per 24 hours
- ✓ Cost for product & application, $16,100 USD
- ✓ Savings equivalent to $3,525 USD per 21 day voyage
- ✓ Payback achieved after 95 days of sailing

Synavax High Heat Temperature Control Coating (TCC) was applied to the tubular system and tanks of the HFO system for insulation and to prevent corrosion under insulation.

The coating reduced the diesel fuel used to heat the HFO system by 30%, reducing the daily diesel fuel use by 360 liters per 24 hours, which equates to more than 7,500 liters of diesel fuel saved during a typical 21 day round trip Asia/US/Asia journey, equivalent to approximately $3,525 USD or more in cost savings.

The project was undertaken on a 3,725 TEU container vessel. The High Heat insulating and anti-corrosion coating was applied to the HFO tanks and tubular system at a coverage of 6-coats, totaling a 200 micron dry film thickness. The High Heat coating was top coated with a Marine Finish Coat that protected it from any extended periods of salt water immersion.

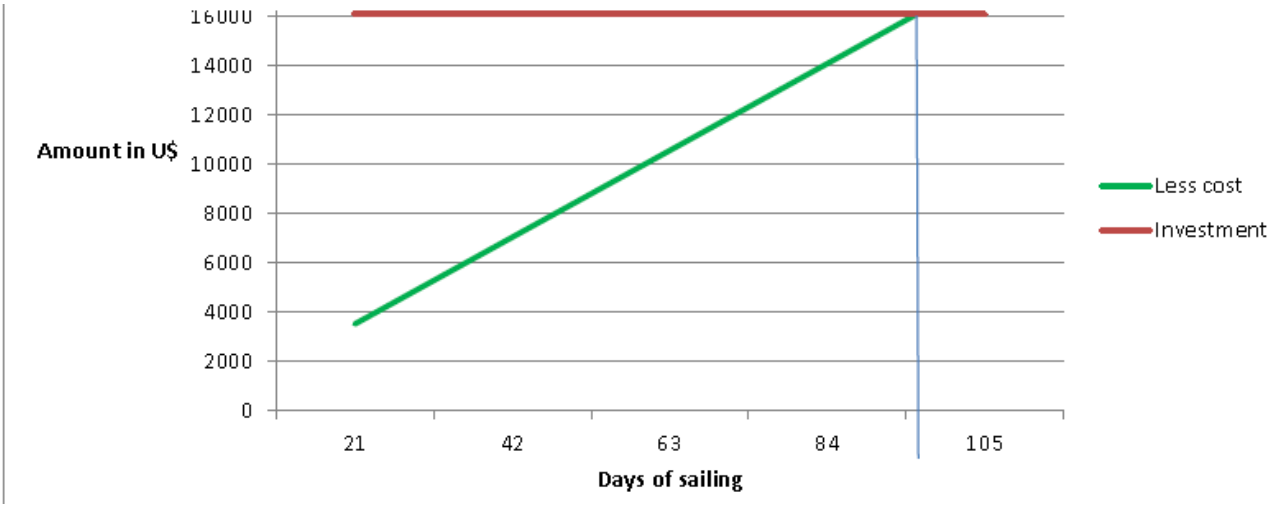
The cost of application and materials used to insulate the HFO tanks and tubular systems was $16,100 USD. The return on investment was achieved after 95 days of sailing.

Reduction of Carbon Emissions:

If we use the well-to-wheel emissions factor for diesel oil of 2.9kg CO2/liter, that is a savings each 24 hours of sailing of 1,044kg of CO2 emissions.

For a 21 day voyage, that's a reduction for one vessel of 21,924kg (24 tons) of emissions.

Return on Investment for High Heat on Tubular Systems



Daily use of HFO heating related diesel fuel dropped some 360 liters per 24 hours, or $169.20 USD per day. On the typical 21-day round trip journey Asia/US/Asia more than 7,500 liters of diesel was spared, an equivalent of $3,525 USD or more. The application and materials used to insulate the HFO tanks and tubular systems with Synavax High Heat cost $16,100 USD. This investment is paid back after 95 days of sailing.