



# Protecting Offshore Assets - Sustainable Deck Coatings

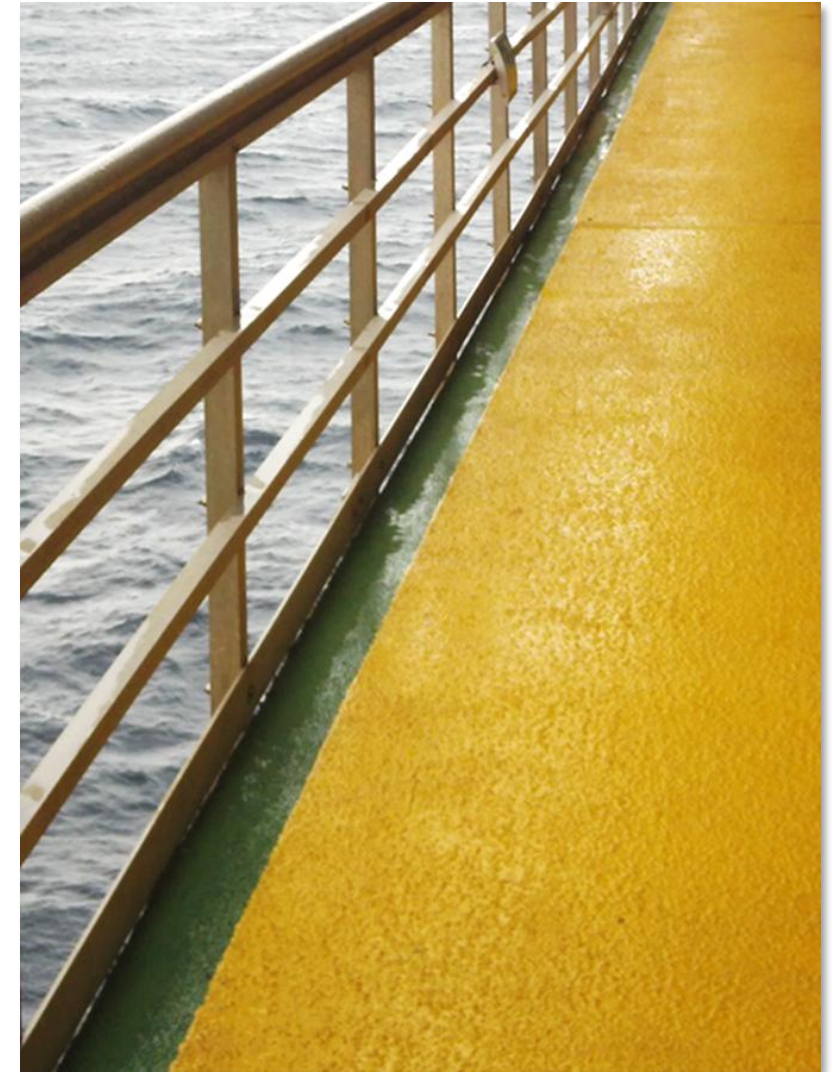
FLNG/FPSO Seminar  
- Shanghai

December 1<sup>st</sup> 2025



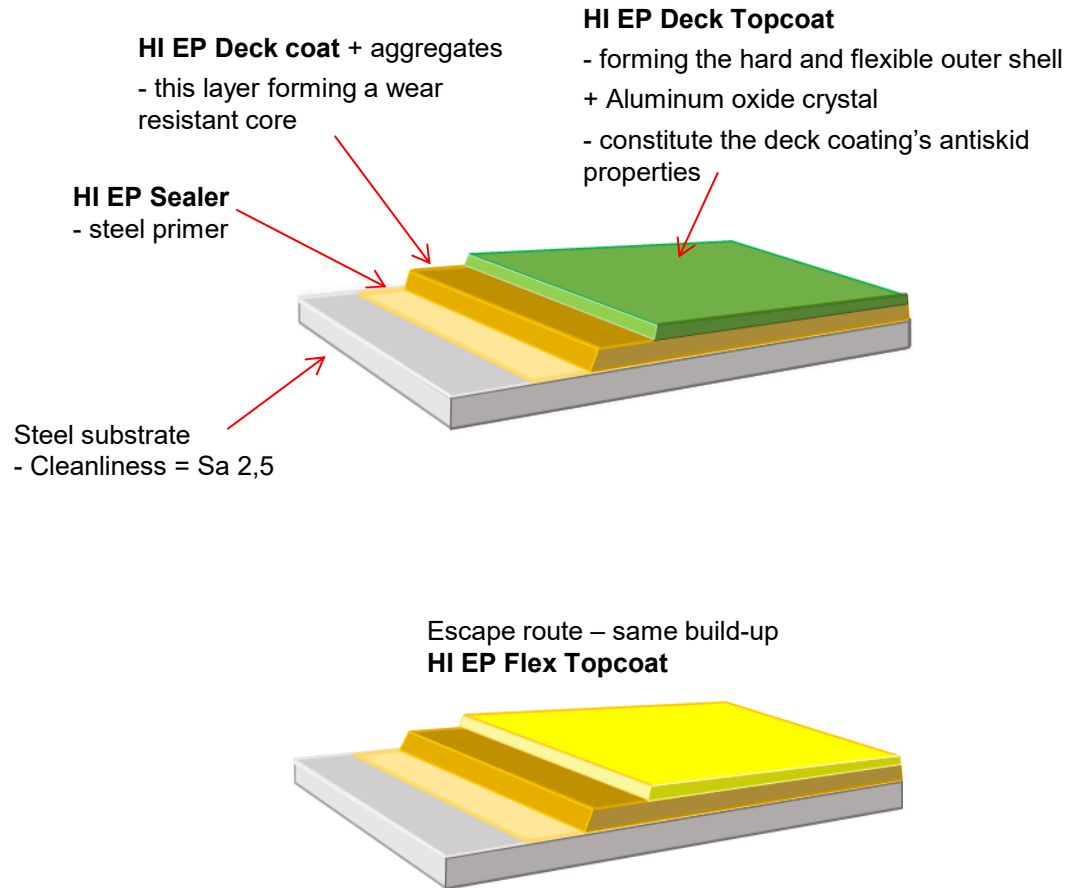
# Hummervoll - Introduction

- Norwegian based company
- Main market world-wide offshore
- Recognized **deck coating specialist**
  - High-end products
  - Supervision services
  - Inspection & technical support
- ISO certifications
  - ISO 9001 / 14001/ 45001 - DNV certified

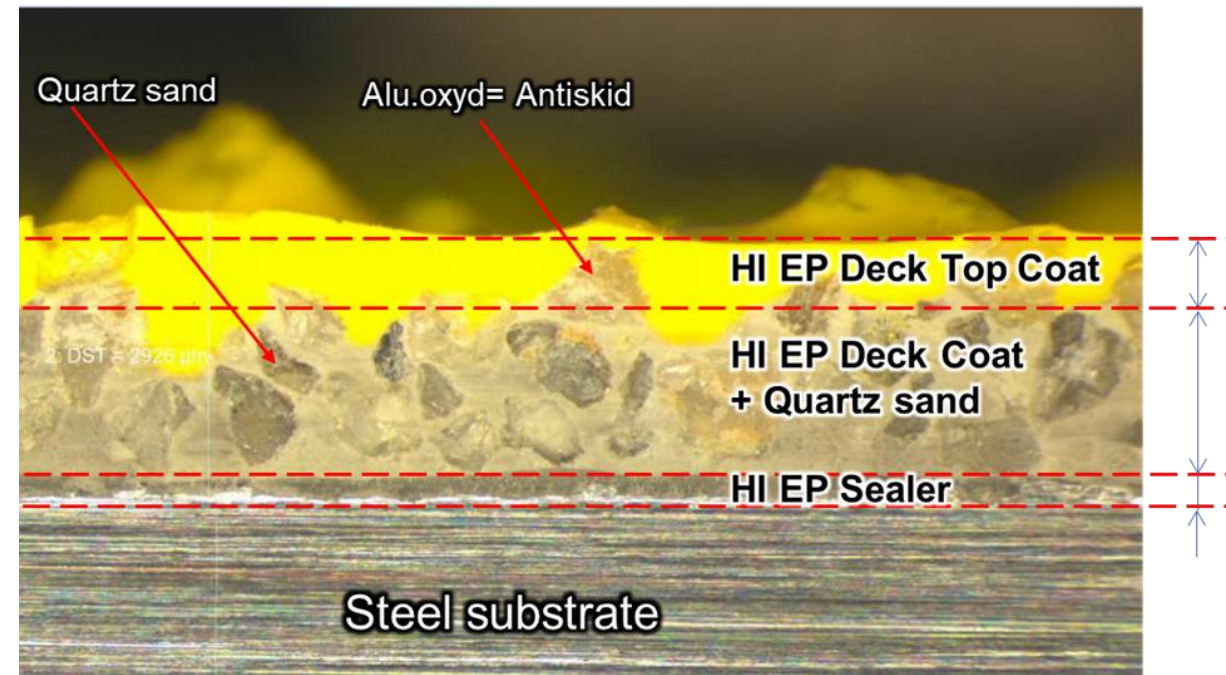


# System build-up - Hummervoll deck coating

The Hummervoll deck coating system is a 3-layer solvent free epoxy coating



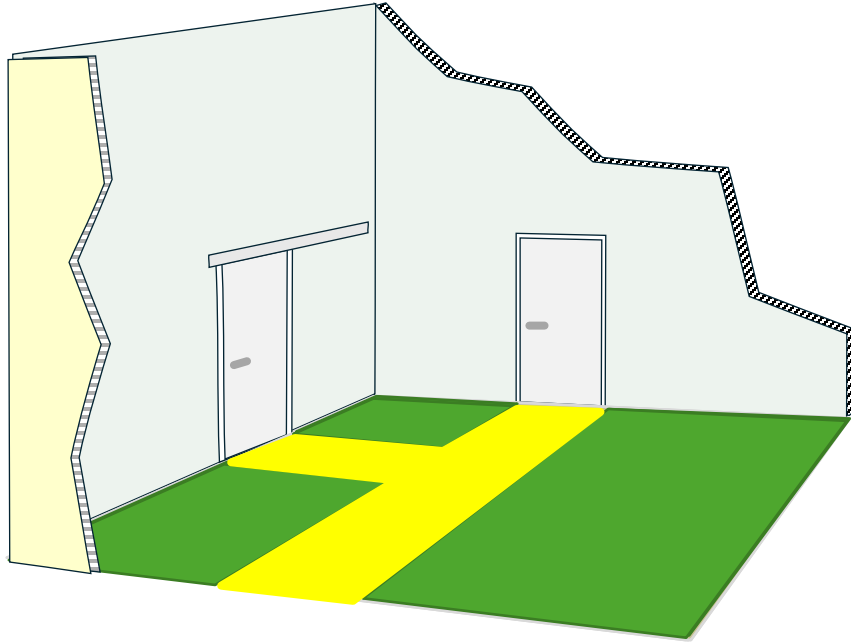
Hummervoll Deck coating system TFT=3mm  
Cross section of system build up





# Application sequences - Hummervoll deck coating

Solvent free epoxy coating



- 1 Deck area incl. walkway  
Steel substrate – Pretreatment: Sa 2,5
- 2 Apply **HI EP Sealer** on all area → TFT = 200µm
- 3 Apply **HI EP Deck coat + quartz sand** - whole area → TFT = 2000µm
- 4 Mark-up walkway
- 5 Apply **HI EP Deck Topcoat** on Deck areas TFT = 800µm
- 6 Apply **HI EP Flex Topcoat** on **Walkway** areas TFT = 800µm

# Performance testing

## Mechanical properties

- Outstanding Corrosion protection
- Excellent longevity (25+ years)

### Corrosion creep from scribe

- Very low rust creep
- Measured 2,4mm (req. < 8mm)

Calc. corrosion from scribe:  
Creep rust = 2,4mm  
Requirement < 8mm

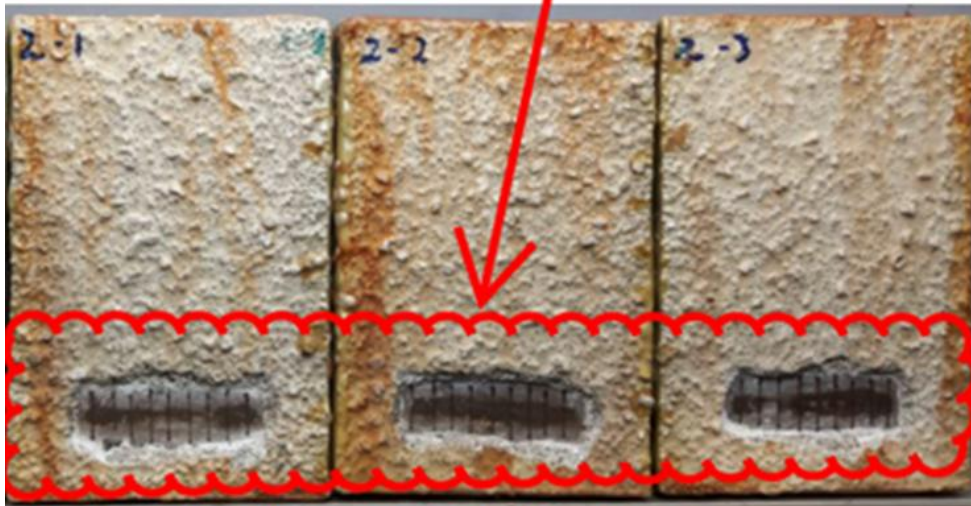


Figure 1 Cyclic ageing with aggregate – scribe line assessment

### Adhesion to substrate

- Very high Adhesion values
- Measured > 10MPa (Requirement > 5MPa)

Adhesion values:  
> 10MPa  
Requirement > 5MPa

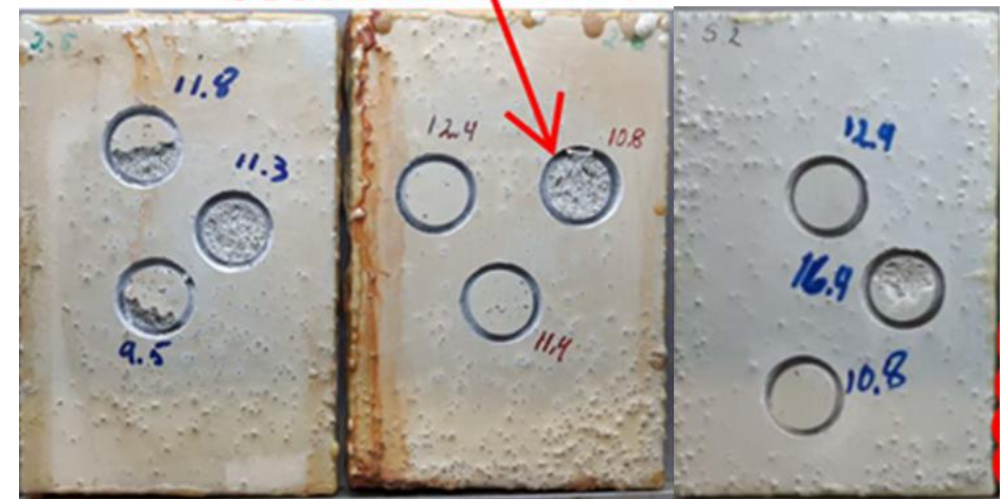
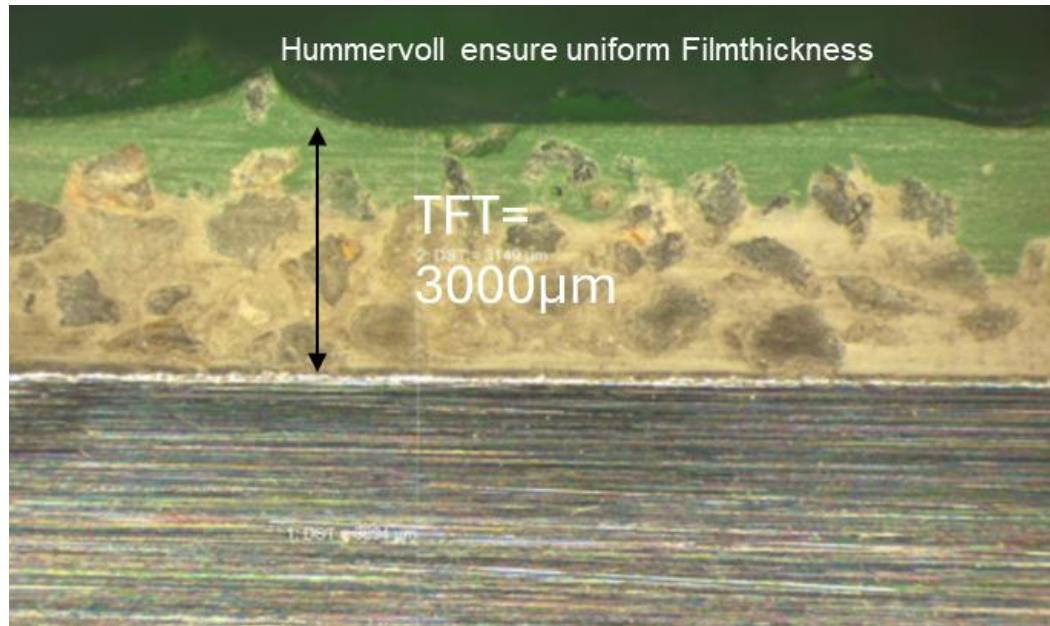


Figure 2 Cyclic ageing without aggregate – adhesion

# Hummervoll Deck coating

Hummervoll syst. 4 (Norsok M501)

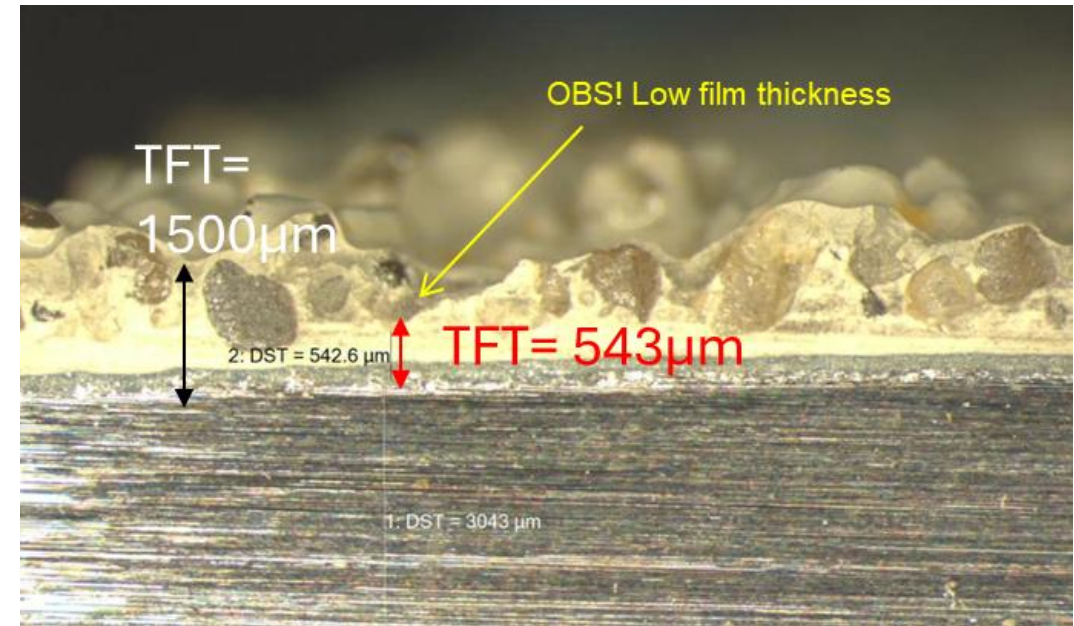
TFT=3000 µm



Product	Solid content	Discharge
HI EP Sealer	100%	
HI EP Deck coat	100%	
HI EP Deck Top coat	100%	
<b>Total</b>		<b>0,00 l/m<sup>2</sup></b>

Other supplier syst. 4

TFT≈1500 µm



Generic Product	Solid content	Discharge
Epoxy Primer	50%	0,22 l/m <sup>2</sup>
Epoxy Mastic	85%	0,12 l/m <sup>2</sup>
Epoxy Mastic	85%	0,12 l/m <sup>2</sup>
Epoxy Topcoat	80%	0,06 l/m <sup>2</sup>
<b>Total</b>		<b>0,52 l/m<sup>2</sup></b>



# Floor Screed Plus – deck surface levelling properties

- Levelling the deck surface - to prevent water pounding
- Developing slopes
- Thickness 0 – 50mm
- Epoxy mortar
- External decks
- Indoor decks
- Solvent free
- Application tools
  - Steel trowel

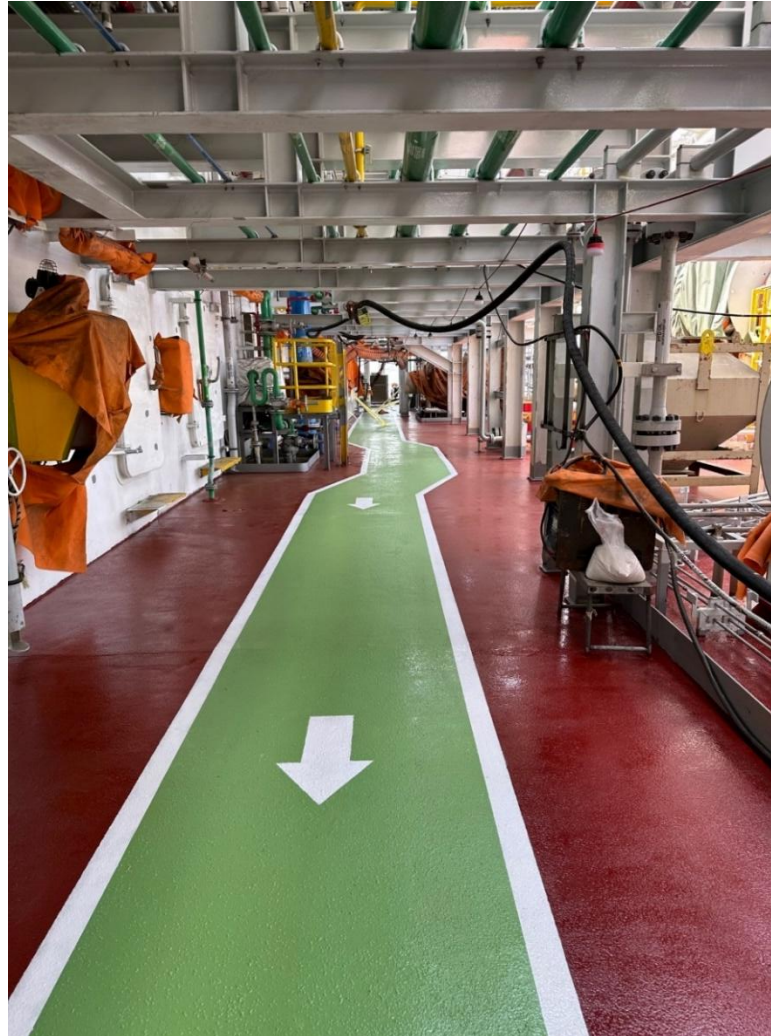




# Properties & final result - deck coating application...

## **Hummervoll Deck coating**

- Extremely wear resistant
- Excellent corrosion protection
- Chemical resistance
- Outstanding mechanical properties
- Solvent free
- Exceptional long lifespan
- Products and services – your “turn-key solution”
- Long track record (35+ years) - an extensive reference list





# Installation & Services - Value Propositions

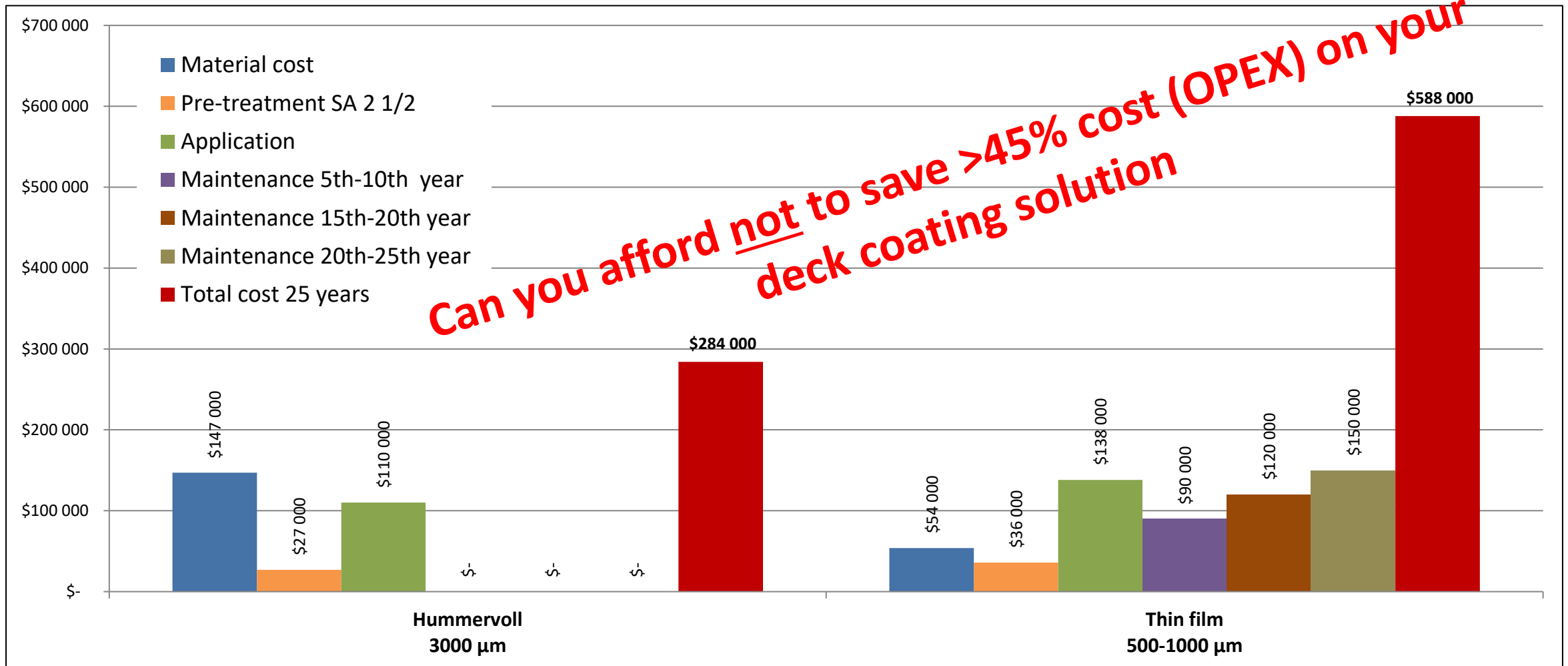
- **Efficient- and short installation**
- Experienced supervisors
  - Assure top quality and efficient deck coating application
  - Ensure successful project execution
- Limitless technical support
- Custom made documentation
- Application instructions
- Training operators – short course
- Project management - deck coating
- Technical advisory service



# Life Cycle Cost – Value propositions

## Hummervoll vs. Thin Film Deck coating

**Case study:** 3000 m<sup>2</sup> (30.000 ft<sup>2</sup>) Deck, 25 years life span (USD)





# Environmental - Value Propositions

- Quality, long lifespan, reliable- and durable performance
- Low total cost of ownership – Ultra high durability
- No maintenance cost for client in a long-term perspective
  - Maintenance free system - serving 25+ years expected lifetime
- Reduced environmental footprint
  - Zero emissions
  - Solvent free epoxy coating
  - Minimize waste and optimize resources
  - Ensure timely delivery of quality products and services
  - Environment, Sosial and Governance (ESG) compliance
- An extremely cost-effective and sustainable solution
- **Protecting your Offshore Assets – in a long term**

Our sustainable development goals:



# Hummervoll References...

---





LIST OF REFERENCES - OFFSHORE PROJECTS (onshore and offshore)

Customer/kunde	Main systems	Area/areal m <sup>2</sup>	Year/År
Statoil - Veslefrikk, Statfjord and Sleipner fields	HI EP Deck Coat / HI EP Flex Coat	23 940	1992 - 1993
Norsk Hydro - Oseberg 2	HI EP Deck Coat / HI EP Flex Coat	1 430	1991
Statoil - Gullfaks field	HI EP Deck Coat / HI EP Flex Coat	2 800	1990 - 1993
BP - Gyda, Uta fields	HI EP Deck Coat / HI EP Flex Coat	2 110	1990 - 1992
Statoil - Gullfaks C	HI EP Deck Coat / HI EP Flex Coat	3 600	1989

LIST OF REFERENCES - OFFSHORE PROJECTS (onshore and offshore)

Customer/kunde	Main systems	Area/areal m <sup>2</sup>	Year/År
Phillips Petroleum, Ekofisk	HI EP Deck Coat / HI EP Flex Coat	7 000	2003 - 2004
Statoil - Åsgard A, Gullfaks and Statfjord fields	HI EP Deck Coat / HI EP Flex Coat	8 600	2002
Norsk Hydro, Heimdal and Oseberg fields	HI EP Deck Coat / HI EP Flex Coat	2 200	2002
Exxon Mobil, Johan B	HI EP Deck Coat / HI EP Flex Coat	250	2002
Aker Kvaerner, Valhall WHP	HI EP Deck Coat / HI EP Flex Coat	1 000	2002
Statoil, Kviteseid	HI EP Flex Coat	4 000	2001 - 2002
Smedvig Offshore, West Venture	HI EP Deck Coat / HI EP Flex Coat	1 500	2001 - 2002
Norsk Hydro - Kvaerner (Mostostal, Stavanger, Egersund); Grane	HI EP Deck Coat / HI EP Flex Coat	20 000	2001 - 2002
Norsk Hydro, Oseberg A	HI EP Deck Coat / HI EP Flex Coat	4 000	2001 - 2002
ExxonMobil, Bonga	HI EP Deck Coat / HI EP Flex Coat	7 000	2001 - 2002

LIST OF REFERENCES - OFFSHORE PROJECTS (onshore and offshore)

Customer/kunde	Main systems	Area/areal m <sup>2</sup>	Year/År
Aker BP - Aker Solutions - Drydocks World, Dubai:	HI EP Deck Coat / HI EP Flex Coat	30 000	2024 -
Yggdrasil - Hugin A & B	HI EP Deck Coat / HI EP Flex Coat	15 000	2024 -
Aker BP - Aker Solutions; Valhall - PWP & Fenris	HI EP Deck Coat / HI EP Flex Coat	10 000	2024 -
Aker BP - Albet; Yggdrasil - Munin	HI EP Deck Coat / HI EP Flex Coat	12 000	2023 -
MOOG - Equinor; Bacalhau FPSO	HI EP Deck Coat / HI EP Flex Coat	17 500	2023 -
Woodside - MacDermot - Scarborough FPSU	HI EP Deck Coat / HI EP Flex Coat	14 700	2022 -
ScottishPower Renewables - Aker Solutions;	HI EP Deck Coat / HI EP Flex Coat	12 000	2020 - 2023
East Anglia THREE - Offshore Wind project	HI EP Deck Coat / HI EP Flex Coat	900	2020 - 2021
Orsted & Eversource - Aker Solutions; Sunrise Wind	HI EP Deck Coat / HI EP Flex Coat	20 000	2021 - 2024
Equinor - Albet; Doggerbank A, B & C (HVDC Offshore Wind)	HI EP Deck Coat / HI EP Flex Coat	30 000	2019 - 2020
Equinor; Oseberg / Statfjord A	HI EP Floorscreed	10 000	2016-2017
Equinor - DDW & Aker S; Johan Castberg FPSO - Turret & topside	HI EP Deck Coat / HI EP Flex Coat	10 000	2016-2017
Equinor - Albet; Johan Sverdrup Process Platform (P2)	HI EP Deck Coat / HI EP Flex Coat	10 000	2016-2017
Equinor - Sembcorp Marine; Johan Castberg FPSO - hull deck	HI EP Deck Coat / HI EP Flex Coat	800	2019
Maersk Drilling - Maersk Developer (Trinidad)	HI EP Deck Coat / HI EP Flex Coat	12 000	2017-2019
Transocean - Frame agreement; deck coating on 4 offshore rigs	HI EP Deck Coat / HI EP Flex Coat	25 000	2017-2019
Statoil - SHI, Korea; Johan Sverdrup Process Platform	HI EP Deck Coat / HI EP Flex Coat	15 000	2017-2019
Statoil - SHI, Korea; Johan Sverdrup River Platform	HI EP Deck Coat / HI EP Flex Coat	15 000	2016-2019
Statoil - Albet; Johan Sverdrup Drilling Platform	HI EP Deck Coat / HI EP Flex Coat	15 000	2016-2019
Statoil - Kvaerner; Johan Sverdrup LQ & Utility Platform	HI EP Deck Coat / HI EP Flex Coat	10 000	2016-2017
Statoil - HHI, Korea; Aasta Hansteen	HI EP Deck Coat / HI EP Flex Coat	10 000	2016-2017
Statoil - DSME, Korea; Mariner	HI EP Deck Coat / HI EP Flex Coat	8 000	2016-2017
Statoil - DSME, Korea; Gina Knøgh	HI EP Deck Coat / HI EP Flex Coat	9 000	2016-2017
TOTAL - SHI, Korea; Martin Linge	HI EP Deck Coat / HI EP Flex Coat	10 000	2015
Det Norske Oleselskap (Singapore); Ivar Aasen	HI EP Deck Coat / HI EP Flex Coat	10 000	2014 - 2015
Maersk Drilling (Kappel FELS, Singapore); 3 x XLE Jack-up rig	HI EP Deck Coat / HI EP Flex Coat	13 000	2013 -
Statoil (Korea); Valemon	HI EP Deck Coat / HI EP Flex Coat	13 000	2013 -
Statoil - Kvaerner (Poland, Norway); Edvard Grieg	HI EP Deck Coat / HI EP Flex Coat	2 000	2013 -
Statoil - Albet (Poland, Thailand); Troll A	HI EP Deck Coat / HI EP Flex Coat	16 000	2012 -
ConocoPhillips - Kvaerner (Poland, Finland, Norway); Eldfisk 2/7 S	HI EP Deck Coat / HI EP Flex Coat	4 000	2010 -
ConocoPhillips (Poland, Norway); Eldfisk 2/4Z	HI EP Deck Coat / HI EP Flex Coat	3 600	2010 - 2011
Statoil - Albet (Thailand, Poland); Gudrun	HI EP Floor Screed W	11 000	2009 - 2015
Saipem - Westcon Yards; Scarabeo 8	HI EP Deck Coat / HI EP Flex Coat	2000	2009 - 2011
ConocoPhillips - SMOE Yard (Singapore); Eldfisk 2/4L	HI EP Deck Coat / HI EP Flex Coat	25 000	2008 - 2010
ENI - HHI (Korea); Gollat FPSO	HI EP Deck Coat / HI EP Flex Coat	2 000	2007 - 2008
BP - Samsung Yard (Korea); Skarv	HI EP Deck Coat / HI EP Flex Coat	1 500	2006
StatoilHydro - Kvaerner; Gjøa	HI EP Deck Coat / HI EP Flex Coat	2 500	2007 - 2008
BP - Idun	HI EP Deck Coat / HI EP Flex Coat	3 000	2007
StatoilHydro; Sleipner B	HI EP Deck Coat / HI EP Flex Coat	200	2007
ConocoPhillips; Ekofisk Charlie	HI EP Deck Coat / HI EP Flex Coat	1 900	2007
Shell; Ormen Lange	HI EP Deck Coat / HI EP Flex Coat	1 500	2006
Norsk Hydro; Oseberg A	HI EP Deck Coat / HI EP Flex Coat	500	2006
BP - Rosenborg Værft; Uta	HI EP Deck Coat / HI EP Flex Coat	3 000	2005
Statoil; Snøhvit LNG	HI EP Deck Coat / HI EP Flex Coat	1 500	2005
Norsk Hydro; Grane	HI EP Deck Coat / HI EP Flex Coat	2 000	2004 - 2005
Statoil; Statfjord and Troll fields	HI EP Deck Coat / HI EP Flex Coat	2 000	2004 - 2005
Norsk Hydro; Grane and Oseberg fields	HI EP Deck Coat / HI EP Flex Coat	20 000	2003 - 2004
Norsk Hydro; Oseberg Feltcenter	HI EP Deck Coat / HI EP Flex Coat	750	2003 - 2004
Exxon Mobil; Bingham	HI EP Deck Coat / HI EP Flex Coat		
Statoil / Aker Kvaerner; Kristin	HI EP Deck Coat / HI EP Flex Coat		
Smedvig Offshore; West Navion and West Venture	HI EP Deck Coat / HI EP Flex Coat		



Gullfaks C



Sunrise Wind



# Bacalhau FPSO

- 370 m long, 64 m wide - 33 m molded depth
- 350.000 m<sup>3</sup> total cargo storage capacity (i.e. 2,2 million barrels)
- 25.000m<sup>2</sup> - Hummervoll deck coating

# Contact details - Hummervoll

## Arve Samnøy

Sales Manager Offshore & Energy

- Phone: +47 980 70 069
- E-mail: [arve.samnoy@hummervoll.no](mailto:arve.samnoy@hummervoll.no)



## Hummervoll Partner company in China:

- Dalian ChuangSheng Marine Technology CO.,LTD.
- **Mr. Lewis Liu/刘顺昌**
  - Phone: +86-135-9133-3871
  - E-mail: [liushunchangdl@126.com](mailto:liushunchangdl@126.com)