

CASE STUDY: CRACK PREVENTION

Requirements

An offshore oil rig platform in the North Sea needed top to bottom replacement of its galley floor. Previously installed concrete underlayment and resin top coats failed, producing visible cracks. These cracks trapped food debris, creating cleanliness issues. Delaminated edges around drains and scuppers created serious slip hazards and maintenance issues. This continuous service area required a seamless, flexible, waterproof solution to eliminate future cracking and prevent coating delamination and corrosion.



Offshore oil rig platform in North Sea

Considerations

- Crack development in the concrete underlayment and resin top coats resulted in significant water ingress
- Water penetration resulted in extensive corrosion on the steel deck and the potential for future structural integrity failures
- Failed decking system allowed food debris buildup and standing water, which prevent hygienic and safety standard adherence

Solution Overview

A SynDeck Ultra Lightweight Deco anti-slip finish, full resin system was installed to create a waterproof, lightweight interior decking solution that flexes under foot traffic and equipment weight pressure to prevent underlayment and coating cracking.



Failed concrete underlayment and coatings with cracks and delamination.

Results

- **Flexible Adhesion** – Full resin system flexes with use to prevent cracks and delamination
- **Waterproof** – Full resin system prevents oxidation to protect steel deck structural integrity
- **Seamless** – Bulk head to bulk head deck covering eliminates gaps that trap food debris and water to support hygienic and safety standard adherence



Installed anti-slip galley floor with crack resistant SynDeck flexible, waterproof, full resin system.

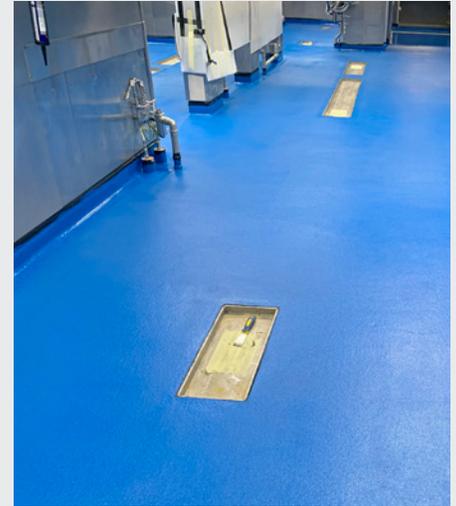
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Water damaged and failed concrete underlayment adjacent to scupper.

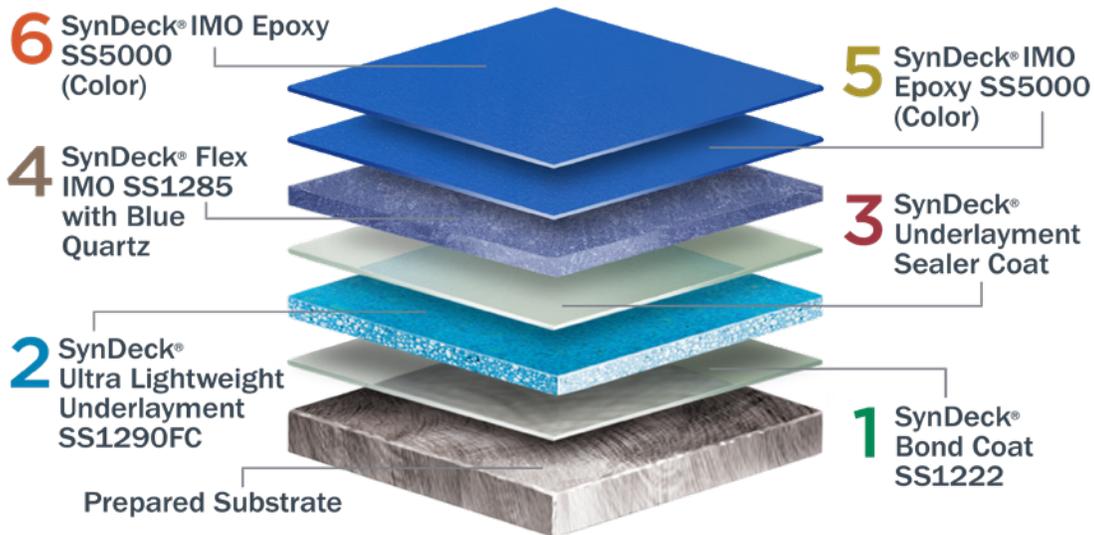


Installed SynDeck Flex IMO flexible, water barrier epoxy with anti-slip quartz broadcast over waterproof resin underlayment.



SynDeck flexible, waterproof, anti-slip full resin system, pending scupper grate installation.

System Installed: SynDeck Ultra Lightweight Deco with Anti-Slip



About: SynDeck Marine Underlayments and Deck Coatings are developed and manufactured in the US by EPMAR Corporation. Since 1987, we have custom formulated products suitable for the harsh marine environment. SynDeck products are water resistant, light weight, flexible, durable and deliver fast turnover.

DISCLAIMER: The information contained in this case study is intended for illustrative purposes only and should not be considered as a product or system recommendation. Each installation is unique and any product selection must consider specified requirements along with other factors that may impact product application and performance.

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