

CASE STUDY: WET SPACES

Requirements

A Navy Daring class destroyer required complete replacement of some of its wet space floors. Decorative rubber tiles installed over cement based underlayment allowed water ingress to penetrate to the steel deck. This resulted in visible delamination of the rubber tiles from the cement based underlayment and steel deck corrosion. Waterproof underlayment and decorative floor covering solutions were needed to prevent future deck corrosion, eliminate floor covering trip hazards and reduce maintenance.



Navy Daring Class Destroyer

Considerations

- Installation of wet space suitable underlayment and a seamless resin floor applied covering system
- Identification of anti-slip, decorative floor covering alternative to rubber tiles
- Seams between rubber tiles allowed for water penetration to the underlayment and through to the steel deck, creating safety and maintenance issues
- Water penetration resulted in extensive corrosion on steel deck and the potential for future structural integrity failures

Solution Overview

A SynDeck Lightweight Underlayment IMO Flex with Flake full resin system was installed to create a waterproof, seamless, wet space decking solution that drains properly and offers decorative appeal.



Delaminating rubber tiles in wet spaces due to water ingress at seams, creating significant safety and maintenance issues.

Results

- **Sloping Underlayment** – Trowel applied for proper sloping to scuppers and drains
- **Anti-Slip, Decorative Coating** – Resin floor covering system designed for flake broadcast and non-skid top coating
- **Seamless** – Eliminates points of water ingress to prevent delamination
- **Waterproof** – Full resin system prevents oxidation to protect steel deck structural integrity



Installed wet space, decorative floor with SynDeck waterproof, seamless, full resin system.

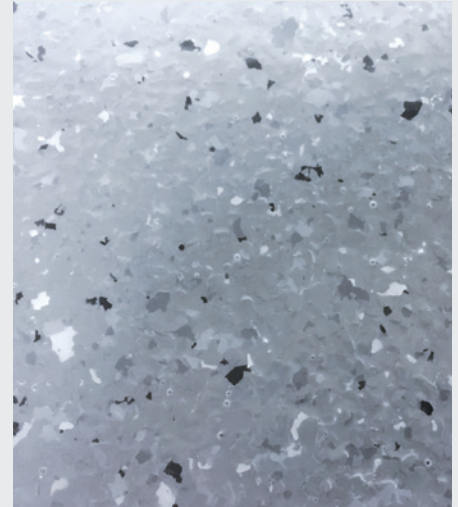
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Extensive steel deck corrosion caused by water ingress through rubber tiles and concrete underlayment.

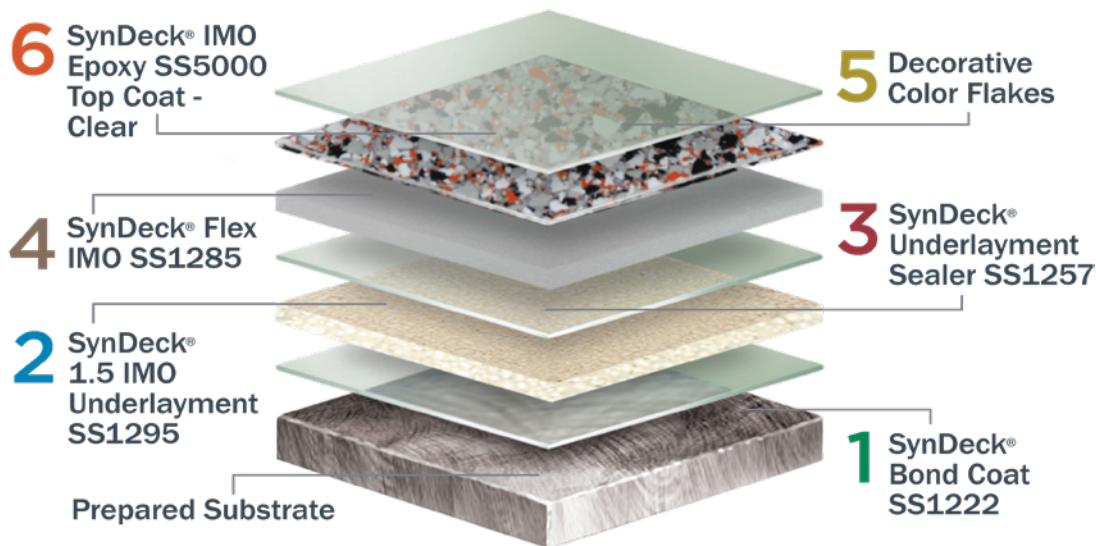


Installation of flexible, resin coating with flake broadcast over lightweight, resin underlayment in wet space.



Detail of decorative, full resin floor system with anti-slip finish for safety in wet space areas.

System Installed: SynDeck Lightweight Underlayment IMO Flex with Flake



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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