

Belzona Solutions for Rubber Balloon Crack Repair

ID: 9784

Industry: Marine
Application: SOS-Ships and Offshore Structures

Customer Location: ABU DHABI, UNITED ARAB EMIRATES
Application Date: January 2020

Substrate: Rubber
Products: Belzona 2111 (D & A Hi-Build Elastomer), Belzona 2211 (MP Hi-Build Elastomer), Belzona 2921 (Elastomer GP Conditioner), Belzona 9111 (Cleaner Degreaser)

Problem

A marine customer has reported severe cracking in their floating rubber balloons, primarily due to dredging activities in the sea. The dredging process has caused the balloon surfaces to come into contact with sharp debris, leading to punctures and fractures. Additionally, strong water currents and sediment movement have intensified the stress on the balloons, further worsening the damage. Consequently, the customer is struggling to maintain the structural integrity of the balloons, impacting both operational efficiency and the safety of their marine operations.



Significant cracking in their floating rubber balloons, mainly caused by dredging operations in the sea.



The process started with surface preparation and cleaning using Belzona 9111 (Cleaner Degreaser).



The damaged areas were subsequently repaired and reconstructed using Belzona 2211 (MP Hi-Build Elastomer).



The final layer of Belzona 2111 (D & A Hi-Build Elastomer) was applied for added protection.

Application Situation

The damaged rubber balloon resulted in operational delays, decreased efficiency, and higher maintenance costs. Immediate measures are needed to improve balloon durability, reduce damage, and ensure reliable operations.

Application Method

The application was carried out following Belzona Know-How System Leaflet SOS-12, ensuring compliance with industry best practices for corrosion protection and equipment durability. The process began with surface abrasion and cleaning using Belzona 9111 (Cleaner Degreaser), followed by the application of Belzona 2921 (Elastomer GP Conditioner). Damaged areas were then rebuilt with Belzona 2211 (MP Hi-Build Elastomer), and a final layer of Belzona 2111 (D & A Hi-Build Elastomer) was applied for protection.

Since the last inspection in December 2024, the Belzona repair has remained in outstanding condition, showing no signs of wear or failure.

Belzona Facts

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015
 FS 695214
 ISO 14001:2015
 EMS 695213

Belzona products are
 manufactured under an ISO
 9000 Registered Quality
 Management System.

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BELZONA[®]
 Repair • Protect • Improve

Belzona 2211 (MP Hi-Build Elastomer) is a flexible rubber repair polymer designed for the repair, rebuilding, and protection of rubber components. It provides excellent adhesion, high elasticity, and resistance to wear, impact, and environmental degradation. Commonly used for conveyor belts, expansion joints, rubber linings, and flexible couplings, it ensures long-lasting performance in demanding conditions.

Belzona 2111 (D & A Hi-Build Elastomer) is an elastomeric repair material designed for the flexible repair and protection of rubber components. It provides excellent adhesion, high elasticity, and resistance to abrasion, wear, impact, and environmental conditions. This system is commonly used for repairing damaged rubber surfaces such as conveyor belts, flexible joints, seals, and inflatable components, restoring their integrity and extending service life.

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