

Cold Bonding Using Belzona 7311 on a Yacht Hull

ID: 9834

Industry: Marine
Application: VPF-Valves, Pipes and Fittings
Substrate: Stainless-steel
Products: Belzona 7311

Customer Location: Italy
Application Date: July 2023

Problem

The requirement for a long term structurally sound solution to cold bond a Hawse pipe structure and anchor pocket to a yacht hull.



Structure that required the bonding solution.



Surface preparation complete.



Belzona 7311 applied.



Finished application of Belzona 7311.

Application Situation

This Customer was looking for a cold bonding solution to bond a Hawse pipe structure and anchor pocket to their yacht hull. The anchor pocket, which was made of stainless steel, is typically secured either mechanically through heavy bolting or welding, often with the use of bimetallic coupling plates to ensure compatibility between dissimilar materials. This process is technically complex, as welding dissimilar metals can often lead to significant corrosion issues, while mechanical anchoring risks water ingress can cause aesthetic defects such as blistering or water pockets beneath the yacht's hull coating.

Application Method

The hull and the plates were first mechanically prepared according to SSPC-SP11 standards. Belzona 7311 was the chosen solution and was used in conjunction with a threaded mechanical anchoring system. The two components were positioned and aligned using hoists, hydraulic jacks, and threaded rods acting as guides.

This method offered several advantages as it guaranteed 100% adhesion across all contact surfaces, enabled bonding of dissimilar metals without causing corrosion or galvanic incompatibility, and provided a complete seal around the perimeter, effectively preventing water ingress.

Belzona Facts

The entire bonding process was completed within the working life of Belzona 7311, which was approximately less than one hour,

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

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