

Pallet Drone Storage and Charging Area repaired and protected with Belzona 5821

ID: 10290

Industry:	Marine	Customer Location:	Devonport, New Zealand
Application:	FPA-Floor Problem Areas	Application Date:	May 2026
Substrate:	Stainless-steel		
Products:	Belzona 1161 (Super UW-Metal),Belzona 5821,Belzona 9231 (Surefoot Aggregate)		

Problem

This storage area is used for the storage and charging of autonomous pallet loaders and is often wet. This abrasion and intermittent immersion created a great deal of heavy wear and tear, and the conventional epoxy paint systems the customer has tried have all failed in a very short amount of time. Peeling paint can get caught in the tracks of the pallet trucks and cause damage, it also prevents adequate traction for the trucks impacting operational efficiency.



The previous paint system was unable to withstand the aggressive conditions and had failed

Pitting in the floor was reclaimed with Belzona 1161 (Super UW-Metal). A first coat of Belzona 5821 was then applied over the top and allowed to cure over the weekend. This first coat was abraded prior to applying a second coat of Belzona 5821 on Mon

The second coat of Belzona 5821 was broadcast with Belzona 9231 (Surefoot aggregate) to ensure a non-slip surface.

A final topcoat of Belzona 5821 was applied over the Surefoot, to encapsulate the grip system for ease of cleaning as per the wishes of the client.

Application Situation

The original paint system had been applied and reapplied numerous times and even when combined with a grip system, did not have the adhesion or cohesive strength to deal with the torque of the pallet truck treads, or the intermittent immersion in salt-water. The Belzona system was applied in the same amount of time as the previously applied paint systems but will offer much greater longevity in service and will provide a stable, safe surface for the pallet trucks to move about on.

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Application Method

The walls surrounding the parking area were protected with fluke board and the floor was grit blasted to a 75 micron profile, SA-2.5 in line with the specification. Pitting was reclaimed with Belzona 1161 (Super UW-Metal) and a first coat of Belzona 5821 was brush applied. Once cured, this coating was abraded and a second coat of Belzona 5821 was applied by brush, Surefoot aggregate was broadcast uniformly over this second coat prior to curing and bedded down with a roller. Once stable a third coat was added over the top to encapsulate the grip system and reduce the risk of dust or grit breaking away from the Belzona 5821.

Belzona Facts

The original paint specification had routinely failed, and the product and labour costs were high. Belzona systems are well respected by the client, and they approached us directly asking for a more permanent solution. As the area is dynamic, a hard-wearing Belzona coating was needed and owing to it's abrasion resistance and high adhesion, Belzona 5821 was an ideal candidate. Combined with Belzona 9231 (Surefoot aggregate) we were able to provide a hard-wearing, non-slip surface in this area that will last much longer in service than pervious applications.

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