

Port Otago Rail Pad Redevelopment

The Project

Project: Port Otago Rail Pad Redevelopment

Product: Ramset™ Epoxy

Date: August 14, 2025

Ramset™ products were a crucial component of the successful redevelopment of the Port Otago Rail project.

Ramset's C8-450 epoxy adhesive was a vital part of ensuring structural integrity during the redevelopment of the Port Otago rail siding, just outside Dunedin, New Zealand.

Recently completed, the redevelopment of the rail pads involved the excavation of the old rail section of the port, which had maintenance issues, and the placement of four new sidings.

Demonstrating exceptional consistency of product, Ramset's C8-450 epoxy adhesive enabled the successful installation of more than 8000 M22 Gr8.8 threaded rods into 150mm-deep, 25mm-diameter drilled holes for this project.

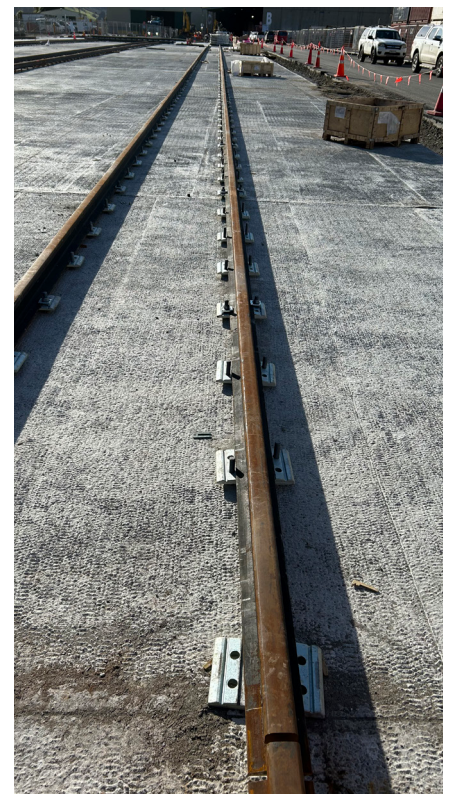
The structural integrity and precise alignment of the new track were reliant on the performance of the anchoring system, securing the rail baseplates to the supporting 275mm thick fibre reinforced concrete slab.

Project engineer with the contractors for the project, Martinus Rail, Arnel Agor, said the Ramset epoxy product performed very well.

"It was easy to apply and the customer service from Ramset was pretty amazing," he says. "When we had any issues, they responded accordingly, which was great."

Arnel said the Port Otago project was his first time using this particular Ramset product, but Martinus Rail has used it in other projects throughout New Zealand, and it was recommended by his colleagues when he was searching for the right chemical adhesive.

He added that it was a challenging job, with Martinus Rail needing product for more than 8000 bolts, or threaded rods, that needed to be inserted into the concrete.



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When used in conjunction with Ramset's dustless drilling system, the system not only ensured superior bond strength and long-term durability but also significantly enhanced installation efficiency – all while adhering to stringent engineering specifications and safety compliance standards.

"Ramset's dustless vacuum, as well as the drill bit, were also pretty helpful," said Arnel. "The whole system was very time-efficient for us, which was especially important because of the number of holes we had to drill."

The epoxy's bond strength and consistent curing performance under variable site conditions delivered a secure and permanent connection between the threaded rods and the concrete slab — critical for maintaining track geometry and long-term structural stability under dynamic loading from freight operations.

While Ramset's part of the project was finished earlier in 2025, the new rail pad is expected to be ready late in August 2025, bringing smoother freight movement, fewer disruptions, and a big step forward for the region's trade future.



Epcon™ C8 Xtrem™

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About Martinus Rail

Martinus Rail is an Australian company, undertaking large rail infrastructure projects throughout Australia, the US, New Zealand and now Chile. The company started in 2005 when founder and CEO, Treaven Martinus, began supplying specialist rail products. It has grown rapidly to become one of Australia's leading rail construction companies. The New Zealand operation is relatively small in relation to the rest of the company, but has had about 300 employees.

About Port Otago

Port Otago is 100% owned by the Otago Regional Council, employing about 330 people. The company's \$9.2b shipping-related cargo throughput value was made up of \$8.1 billion exports (2.47 million tonnes) and \$1.1 billion imports (0.7 million tonnes). Port Otago's principal objective is "to operate as a successful and sustainable business that delivers value to our shareholders in the form of both financial and non-financial returns on investment".



About Ramset™ Epcon™ C8 Xtrem™

The versatile Ramset™ Epcon™ C8 Xtrem™ is suitable for extreme anchoring environments including seismic, cracked concrete, core drilled holes, oversized diameters, flooded conditions and underwater. Epcon™ C8 Xtrem™ is ideal for applications requiring the highest bond strength and security. It accommodates a wide range of climate conditions and is easy to dispense in cold weather. Its long working time is ideal for deep embedment or hot climates.