## Divača-Koper Second Track, Slovenia

BarChip Fibre Reinforced Sprayed Concrete Lining

## BarChip outperforms all other fibres to win supply at Divača-Koper Second Track

**Owner:** 2TDK Company Designer: Elea IC Consultant: IRGO Consulting d.o.o Contractor: Kolektor CPG-Yapı Merkezi-Ozaltin Consortium Completed: 2024

The Divača-Koper railway holds a pivotal position in Slovenia's transportation infrastructure, serving as a vital link between the inland regions and the Adriatic Sea. The railway corridor connects the town of Divača, situated inland, to the bustling port city of Koper on the Adriatic coast.

Started in 2021, The EUR 811 Million Second Track will upgrade the line from a single track to a double-track. The new line will run through 8 tunnels totaling 20.5 km in length. With service tunnels and exits the total tunnel network will be 37.4 km.

When completed, the Second Track will reduce the existing track length from 44 km to 27 km, increase throughput capacity to 212 trains per day and transport capacity to 36.9 million tonnes per year.

Excavated by New Austrian Tunnelling Method, the tunnels required a sprayed concrete (shotcrete) temporary lining for ground support with a performance specification of 320 Joules at 7 days and 400 Joules at 28 days according to ASTM C1550 panel testing.

In total, 6 suppliers submitted fibres for performance testing. A detailed testing program was developed, beginning with cast samples in the laboratory followed by two rounds of onsite testing using sprayed samples. BarChip54 and BarChipR65 passes all three stages of testing with convincing results and were subsequently specified for the tunnel shotcrete lining.

BarChip54 and BarChipR65 were used across all 8 tunnels of the Second Track, with over 850 tonnes used to reinforce more than 150,000 m<sup>3</sup> of shotcrete. Quality assurance testing was carried out each month and both Barchip 54 and Barchip R65 fibres delivered consistent, repeatable results in compliance with the contract specifications.







## **BarChip Inc.**

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