



Protecting the link between Austria and Czech Republic

Hempel's loyal customer Firesta commissioned the company to paint a key bridge in the rail network linking Austria and the Czech Republic.

Hempel has recently brought its expertise to the southern Czech town of Břeclav and the Hohenau-Přerov railway line which runs through it. This inter-station section of the tracks is home to a bridge spanning the Dyje River.

Once it became clear that the existing bridge was in poor technical condition, forcing trains to slow down, Firesta was chosen to replace this structure with a track that could cope with locomotive speeds of 160km/h. The original three consecutive structures were to be replaced by a bridge with a single opening, as requested by the Morava River Basin Agency. The planned construction height at mid-span was 15.64m, with a width of 16.9m.

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The project was unique within the Czech railway system, and Firesta almost exclusively used its own skills and expertise to complete it. The painting systems had to comply with local regulations and the main structure coatings had to be certified as SZDC ONS 03. The structure acts statically as a crossed arch, with the main beam reinforced by a bent arc interacting with a system of rods. On each bridge there are 80 pieces of different inclined tensioned welded rods. Longitudinal effects arising from track and bridge interaction are corrected by a dilatation control system.

So how did Hempel manage to secure a demanding contract which would require multiple coating systems? One factor was that the client had already enjoyed positive long-term experience with Hempel's products and support. The company had previously used Hempel's paint because of its quality, good ratio between performance and price, easy availability, and its accompanying commercial and technical services. Hempel's quick drying, high-build coatings with excellent anticorrosive properties were to prove particularly valuable for the Břeclav Bridge project.

Different coating systems were applied depending of the sections and requirements, including for the main structure, welding areas, galvanized surfaces or areas under insulation. The chosen products were Hempadur Fast Dry 17410, Hempthane HS 55610, Hempadur Zinc 17360, Hempadur 15553 and Hempel's Speed-Dry Alkyd 43140. Hempadur Fast Dry 17410 was the most widely used paint for Breclav Bridge, as this two-component, high build epoxy paint combines a relatively high volume solids content with a short drying period.

The reconstruction project has successfully come to fruition, with the bridge now speeding up cross-European journey times.



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