

SIKA AT WORK MODERNIZATION OF THE RAILWAY LINE NO. 354 POZNAN - PILA BRIDGE OVER WARTA RIVER IN OBORNIKI

SIKA TECHNOLOGY: Icosit[®] KC 340/7, Icosit[®] KC 330 Primer, SikaCor[®]-277



BUILDING TRUST

RECONSTRUCTION OF THE RAILWAY LINE IN NORTHERN GREATER POLAND

RENOVATION OF THE RAILWAY BRIDGE OVER THE WARTA RIVER IN OBORNIKI was carried out as part of the modernization of the 354 Poznan Glowny - Pila Glowna railway line. The line connects north of Wielkopolska with the south of the country and handle with regional and long-distance traffic. The construction of a single-track bridge with a length of 154 m is a steel truss with top drive based on two stone pillars.

CHALLENGES

The solution of rail point fixing which was used to fix rails to the steel structure of the bridge has enabled to connect the designed track level beyond the bridge structure. Fixing the rails had to be done in a short time due to the schedule of renovation works. Disabling a single-track object from traffic necessitated the organization of substitute transport.





ICOSIT® KC 340 - SYSTEM FOR ELASTIC AND POINT FASTENING

SIKA SOLLUTION

Elastic rail fastening to the steel structure of the bridge over the Warta river in Oborniki was carried out with Icosit[®] KC 340/7 under the steel pads together with the Icosit[®] KC 330 Primer.

The **lcosit**[®] **KC 340/7** is intended for point (direct) elastic fastening of rails in railway tracks. This solution protects constructions against dynamic loads and reduces vibrations as well as secondary noise, allowing to reduce the nuisance of rail traffic for the surrounding environment and increases the comfort of travel for passengers.

Usage of **Icosit® KC 340/7** allows precise alignment of the rails, the material is poured in a liquid form and harden without shrinkage, thanks to that it perfectly adapts to the substrate. After hardening it has a high resilience. The material does not conduct electricity.

The steel structure under the points fastening of the rails was protected against corrosion with **SikaCor® 277**, thick epoxy protective coating based on epoxy resin, intended to protect surfaces exposed to external factors, aggressive media and mechanical loads.

The assembly of the track due to the tight schedule of renovation works and very high ambient temperatures was carried out at night. Temperatures above + 35°C prevented the application of materials during the day. In addition, such a high temperature caused problems with the rail setting due to their tendency to buckling.



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PROJECT PARTICIPANTS Owner/Investor: PKP PLK S.A. General contractor: PORR S.A. Subcontractor: Teknobud Sika Poland: Tomasz Wesołowski

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