

## SIKA AT WORK CORROSION PROTECTION OF THE EASTERN BRIDGE IN TORUŃ

SIKA TECHNOLOGY: SIKACOR® EG



# CORROSION PROTECTION OF THE EASTERN BRIDGE IN TORUŃ WITH SIKA TECHNOLOGIES

#### THE GEN. ELIZABETH ZAWACKA ROAD BRIDGE IN TORUN

is one of the most important infrastructure investments in Poland, officially commissioned on the 9th December 2013. New bridge over the Vistula River in the eastern part of Toruń not only does significantly improve the road traffic capacity and enhance driving comfort, but it also increases tourism and economic attractiveness of the city and Kuyavian-Pomeranian Region. The bridge in Torun was also a huge investment, in which a number of innovative solutions and technologies were used. Thanks to a modern, suspended construction, the crossing slightly interferes with the natural environment and a single, central pillar of the bridge does not disturb the original current of Vistula retaining navigability of the river. The use of arches in the structure refers to the existing bridges in Toruń and the object fits perfectly to the surrounding architecture.



Technical parameters of the bridge:

- steel construction, two-span, with one central support on the island in the river,
- length of the bridge: 540 m,
- two structure spans, each 270 m long, 50 m high and 2.7 thousand tons weight,
- two-lane bridge roadway, walkway and cycle track with a total width of 24 meters,
- total length of the bridge road with access roads is 4100 m

#### PROJECT REQUIREMENTS

The steel construction of the bridge required corrosion protection, guaranteeing effective protection for many years. Steel surfaces, which should have been applied with anticorrosion system, included the arch with the inner surface of approximately 35,000 m² and external of approximately 12,000 m². In addition, the other parts of the bridge, approximately 60,000 m² in total, required the corrosion protection too. The corrosion protection system in accordance with the project requirements were to have 25-year service life.



#### **SIKA SOLUTIONS**

For corrosion protection of steel structures in the Eastern Bridge in Torun Sika proven and durable technologies were selected.

For corrosion protection of the external steel surface used the following products: SikaCor® EG Sealer - an epoxy sealer coating in white colour, SikaCor® EG 1 - an epoxy coating containing micaceous iron oxide in DB 702 and DB 703 colours and SikaCor® EG 5 - a polyurethane top coating in grey and blue colours.

For corrosion protection of the inner surface used the following products: SikaCor® Zinc R - a zinc-rich, epoxy primer in zingrau colour and SikaCor® EG 1 - an epoxy coating containing micaceous iron oxide in DB 702 and DB 703 colours.

Additionally, SikaCor® Elastomastic TF was used to perform waterproofing and surface pavements on a total area of approximately 14,000 m², including about 3,000 m² of steel.

#### The advantages of using Sika solutions:

- durability and effectiveness of the corrosion protection system confirmed by numerous projects in Poland and all over the world,
- confirmed applications a zinc-rich epoxy primer in more than one layer,
- · products availability,
- technical support.











### PROJECT PARTICIPANTS

Main contractor: Strabag Sp. zo.o. ul. Parzniewska 10,

05-800 Pruszków - Lider Konsorcjumi oraz Strabag AGAG (Spittal) Ortenburgerstrasse 27, A-9800 Austria - Partner Konsorcjum **Investor**: Miejski Zarząd Dróg w Toruniu, działający w imieniu

Gminy Miasta Torunia

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