



# SIKA AT WORK

## LAGIEWNICKA ROUTE, STAGE I, KRAKOW

SIKA TECHNOLOGIES: **Railfixing:** Icosit® KC system  
**Concrete protection:** Sikagard®-552 Aquaprimer,  
Sikagard®-550 W Ealstic

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# ICOSIT® KC 340/4 - PRECISE ALIGNMENT OF THE RAILS

**CONSTRUCTION OF THE LAGIEWNICKA ROUTE** is a part of the so-called “Krakow's Third Bypass Road”, from the intersection with Grota Roweckiego street to the intersection with Beskidzka and Halszka street. First stage of works included the reconstruction of the track layout of the tram loop on the Kurdwanow housing estate and the renovation of the loop construction.

## PROJECT REQUIREMENTS

The investor's basic requirement was to ensure the durability of applied materials, which allow for long-term operation of the facility and the route. The existing viaduct was in good technical condition and only concrete protective coatings required refreshing. The point (direct) fixation of rails on the loop switches had to enable linking of the new tram line to the existing geometry of the track on the viaduct. The rails on the viaduct in 2000 were fixed with the **icosit® KC 340/4** material. After 18 years, it turned out that the existing undersealing of steel pads is in good condition and does not require replacement.



## SIKA SOLUTIONS

The point (direct) elastic fastening of rails to the concrete structure of turnouts connecting the existing track with the new section of the tramway line at the Kurdwanow housing estate in Krakow was again made with **icosit® KC 340/4**. The **icosit® KC 340/4** is intended for point (direct) elastic fastening of rails in tramway tracks and light commuter trains.



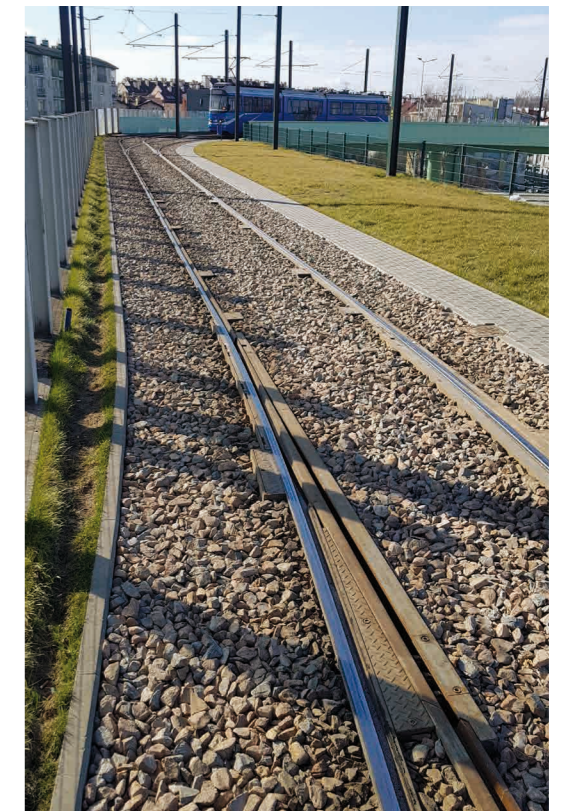
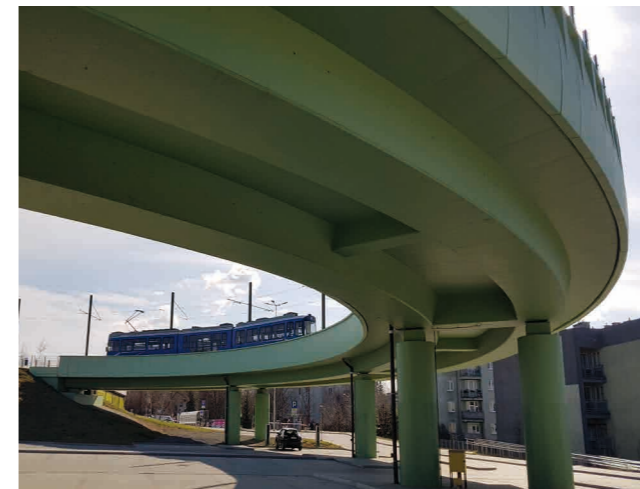
# DURABLE COATING FOR THE PROTECTION OF REINFORCED CONCRETE STRUCTURES

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 340/4** 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 reinforced concrete construction of the viaduct required only the renewal of the corrosion protection with an elastic protective system which meets the highest quality requirements, with durable colors and resistance to UV radiation. During the renovation, prepared concrete substrates were primed with **Sikagard®- 552 W Aquaprimer** material and then protected with a scratch-resistant, elastic **Sikagard® 550 W Elastic** protective coating in RAL 6019 and RAL 6021 colors with excellent weather resistance, permeable to water vapor and tight for carbon dioxide, obtaining aesthetically, effective and durable protection of the reinforced concrete structure.





## PROJECT PARTICIPITANS

**Owner/Investor:** Trasa Lagiewnicka S.A.

**Designer:** TDM PROJEKT Sp. z o.o., Sp. kom.

**General contractor:** BUDIMEX S.A.

**Contractor:** KZN RAIL Sp. z o.o. (branża torowa), PMP Paweł Synowiec (branża mostowa)

**Sika Poland:** Tomasz Wesolowski

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