



SIKA AT WORK

VBZ ZÜRICH STAUFFACHER, SWITZERLAND

JOINT SEALANT: Sikaflex®-406 Pavement, Sika®Primer-3 N

BUILDING TRUST



JOINT SEALANT BETWEEN STREETCAR TRACKS AND ASPHALT PAVEMENT

PROJECT DESCRIPTION

For many years now, Zurich Transport Authority (VBZ) has taken additional steps to ensure the proper waterproofing of joints between streetcar tracks and roadways so as to maximize the service life of the traffic arteries. The measures are aimed at better accommodating longitudinal thermal movement and preventing the infiltration of moisture and water. This, in turn, eliminates the risk of damage to the pavement adjoining the track during the cold season. Previously, hot bitumen – with all the related benefits and drawbacks – had been the established grouting solution. While bitumen's thermoplastic behavior has positive implications on account of the attendant self-healing properties, long-term exposure to physical loads tends to impair the aesthetic impact of the joints. Aside from bitumen smears on the pavement surface, cracking, localized damage, and entrapped waste are not uncommon. This often makes early repairs unavoidable. With the aim of lengthening the service life of the traffic routes, the VBZ opted to specify an elastic polymer grout sealant for the pavement repair works to Stauffacherstrasse and Feldstrasse in Zurich.

In line with the volume and specific cross-section ($\approx 1:1$) of the joints in the roadway, the transport authority prescribed the exclusive use of reactive, boosterable, or 2-component sealants.

REQUIREMENTS / CHALLENGES

Applicator Reparatur- und Sanierungstechnik Nord AG was required to perform the works overnight. Key factors to be considered included the fluctuating temperatures and weather action. The road (including the area shared with the tram) had to remain open to private vehicles during the day. The bus service remained in operation from 5 a.m. until 1 a.m. Yet, the greatest difficulty turned out to be the enhanced demands placed by the specified system on the joint faces. The existing bitumen adhesive compound had to be completely removed by sandblasting.





SIKA SOLUTION

Drawing on the assistance of its specialists, Sika presented the customer with the perfect solution for replacing the existing bitumen joints with a polymer grout sealant. Combining straightforward application with high cost-effectiveness and an extended service life, the adopted product – an accelerated, self-levelling, 1-component sealant – delivered the ideal solution. Blinding with black quartz sand played a major role in meeting the stringent requirements placed on aesthetic impact and early trafficability. Sikaflex®-406 Pavement impresses not only by its high mechanical values and long service life, but also by its high bond strength. This guarantees durable adhesion to both track head and asphalt as well as a strong bond with the quartz sand blinding.



VBZ ZURICH STAUFFACHER, SWITZERLAND



PROJECT TEAM

Owner: Zurich Transport Authority (VBZ), Zurich

Civil engineer: VBZ Project Management

Applicator: RSAG Reparatur- und Sanierungstechnik Nord AG, Wallisellen

Technical support: Sika Switzerland Ltd

SIKA PRODUCTS

- Sikaflex®-406 Pavement: 6,000 kg
- Sika® Primer-3 N: 12 L

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.



SIKA SERVICES AG

Tueffenwies 16
CH-8048 Zurich
Switzerland

Contact

Phone +41 58 436 40 40
www.sika.ch

BUILDING TRUST

