

SIKA AT WORK INDUCTION LOOPS CASTING FOR HIGH MECHANICAL, CHEMICAL AND THERMAL DEMANDS, ZURICH AIRPORT

FIXING: Sika® Icosit® KC-340/35



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PROJECT DESCRIPTION

Traffic control systems often work with induction loops that are casted in the concrete airport slab. The chemical and thermal (specific to this type of application) and mechanical stresses are very high, very often conventional joint sealing systems fail due to these stresses. During the renovation of induction loops, it is possible to use polyurethane-based resin systems with the necessary mechanical, chemical and thermal resistance, while at the same time obtaining the necessary flexibility. A rule of thumb for very durable floor joints is: as flexible as necessary, as hard as possible.

REQUIREMENTS / CHALLENGES

In order to meet the mechanical, chemical and thermal requirements for this type of application and to avoid fractures at the edges, it is necessary to select the appropriate sealing compound. The lcosit® KC-340 group products polyurethane sealing compound does not dissolve in aviation fuel, it is resistant to de-icing agents used at airports – urea and acetate-based agents (Cryotech NAAC and Cryotech E36) and the agent used for testing hydrophobization of concrete (Sikagard®-702 W – concentrate).



SIKA SOLUTION

In this example, the excellent chemical resistance to de-icing agents, water repellants, high temperature (short term) adhesion and the permanently elastic properties of the Sika® Icosit® KC-340/35 used for the embedding induction loops into the concrete slab.

To do this, the troughs are made in the milled concrete slab and after priming the induction loops are placed into and casted using lcosit® KC products. A big advantage of elastic systems is their elastic behavior of the potting material, reducing the stress on the flanks of the slots be minimized. Sika® lcosit® KC-340/35 shows a good ratio between elasticity and mechanical resistance. The Sika Schweiz AG has different degrees of hardness of casting compounds in its range, so that depending on the requirement the focus is more on elasticity or mechanical resistance. Products used in the project:

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- Sika® Primer-3 N
- Sika[®] Icosit[®] KC-340/35

PROJECT PARTICIPANTS

Application:Etavis AG, KlotenSika organization:Sika Switzerland

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





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