SIKA AT WORK
CHÄRSTELENBACH RAILWAY BRIDGE, AMSTEG, SWITZERLAND

REFURBISHMENT AND WATERPROOFING:
Sika® Concrete Primer, Sikadur®-188, Sikalastic®-841 ST

BUILDING TRUST
PROJECT DESCRIPTION
As part of the refurbishment work at the Chärstelenbach Railway Bridge, the waterproofing and protection layer of the concrete gravel trough had to be replaced. The renovation work was carried out in two stages, so that there was always a single track available for the daily operation of the railway line during the entire refurbishment period.

PROJECT REQUIREMENTS
An important precondition for the work on the Chärstelenbach Railway Bridge was that the daily operation of the busy railway line could be kept with one track during the renovation work. The waterproofing of concrete gravel trough should provide a secure and permanent seal with crack-bridging properties and should withstand the mechanical stresses coming from the gravel and its compaction.

SIKA SOLUTION AND ADVANTAGES
The two stages of the Chärstelenbach Railway Bridge rehabilitation were performed with the high reactive liquid applied membrane (LAM) Sikalastic® -841 ST. This Polyurea System ensures a durable and highly crack-bridging waterproofing performance. It also has a good resistance to mechanical and impact stress. The fast reaction time (Geltime: <20 sec.) enables an optimal workflow with minimal waiting time between application steps.

Since the waterproofing membrane is sprayed, the detailing was easy to carry out. Two primers were used: the fast-curing Sika® Concrete Primer and the standard bridge primer Sikadur®-188 which is used as a primer underneath the torched bituminous waterproofing. The testing of the system, configured by means of peel- and pull-off tests has shown good results. It shows the same good result within the system using the fast curing Sika® Concrete Primer. With its fast curing feature and short over coating interval, the downtime on the object could be reduced substantially.

PROJECT PARTICIPANTS
Owner: SBB Luzern
Engineer: Basler & Hofmann, Luzern
Contractor Waterproofing: Tecton AG/ SikaBau AG
Supplier: Sika Schweiz AG