**PROJECT**

Gathering of the relevant influence factors in bridge sealing with waterproof sheeting systems (AGB1998/100)

_Erfassung massgebender Einflussfaktoren bei Brückenabdichtungssystemen mit Polymerbitumen-Dichtungsbahnen_

**Funding:** National (Switzerland)

**Duration:** Nov 1998 - Dec 2000

**Status:** Complete with results

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**Background & policy context:**

Lately expensive damages on bridges have been observed in Switzerland; partly due to problems with the waterproof sheeting, particularly with its application. This situation may be due to the fact that sealing systems must often be applied under extreme conditions during road works (climate and condition of cement); when this happens, the sensitivity of the employed materials may be negatively affected by these harsh conditions. The influence of various factors on the development of damages is relatively complex and yet not well known. This is true despite intensive research efforts in Switzerland and abroad, due to the new developments, which are constantly being offered in this field. It is necessary to resolve this problem with a systematic approach: after an assessment of the current state of the technique, the basic requirements for the gathering of the relevant influencing factors in bridge sealing with waterproof sheeting systems need to be developed. These basic requirements shall serve as starting point for the development of an approval practice and evaluation of new or existing systems which could prevent the development of unexpected, expensive and weighty damages.

**Objectives:**

Investigation of the relevant influence factors in bridge sealing with waterproof sheeting systems.

**Methodology:**

The proposed project foresees the performance of five steps within the scope of a master concept

1: Status of current technique,
2: In-situ evaluation,
3: Development of requirements,
4: Validation,
5: Final report of entire project.

**Parent Programmes:**

ARAMIS - ARAMIS information system

**Institute type:** Public institution

**Institute name:** Swiss Government: State Secretariat for Education and Research

**Funding type:** Public (national/regional/local)

**Partners:**

Switzerland

Swiss Federal Roads Office
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Key Results:

- Report of the status of the technique consisting the existing required values, the experiences, the tests, the norms and guidelines in Switzerland and abroad (authorities, associations, institutions, companies and system providers)
- Identification of relevant influence factors based on available publications in this field
- Determination of the examinations, which are necessary or are to be evaluated; including a proposed detailed experiment programme for the evaluation of the installation of sealing systems in new bridges or sanitation as well as for the evaluation of the condition of the sealing after its application.
- Development of a concept for the in-situ evaluation of relevant influence factors.

Documents:
- Final report (Final report)

STRIA Roadmaps: Infrastructure
Transport mode: Road transport