



SAMI SOLUTIONS

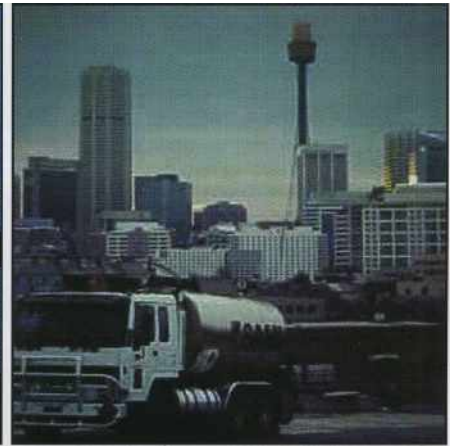
SAMlseal



SAMlseal Solution No. 2

Concrete bridge deck waterproofing critical for durability

- the complete bridge deck waterproofing system, approved by the NSW Roads & Traffic Authority



Vietnam's massive My Thuan Bridge and Sydney's impressive ANZAC Bridge are just two of the many bridge projects where SAMI's concrete bridge-deck waterproofing system has been applied. Water damage can cause long term corrosion of the reinforcing steel in concrete slabs and, consequently, leakage through concrete decks can cause a durability failure.

Concrete decks on bridges tend to crack prematurely due to shrinkage, movement and wear and tear. They are not waterproof and if left unprotected, long-term corrosion of the reinforcing steel can occur.

Consequently, leakage through concrete decks can cause a durability failure.

This major durability problem can be avoided by the application of an appropriate waterproofing membrane to the bridge deck.

RTA approved product

Developed by chemists at SAMI Pty. Limited, Sydney, SAMlseal 6 is a waterproof membrane that fully complies with RTA specifications and has been

approved for numerous RTA bridge projects throughout NSW. The membrane is part of a unique waterproofing system, which comprises:

a) an initial application of SAMlprime QDP (Quick Dry Prime) to the bridge deck to ensure the SAMlseal 6 membrane adheres to the concrete deck.

b) then an application of the SAMlseal 6 waterproofing membrane.

A complete waterproofing system

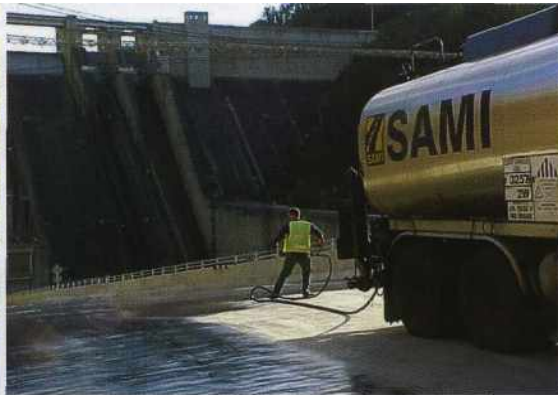
STEP 1: SAMlprime QDP (Quick Dry Prime) is a specially prepared quick drying bitumen based primer, which is applied directly to the concrete surface of the bridge deck. It is

designed to penetrate the fine pores of the concrete deck and any plastic shrinkage cracks, filling them with a residual deposit of synthetic rubber to promote compatibility with the SAMlseal 6 membrane, as well as ensuring optimum adhesion to the concrete surface.

The SAMlprime application will dry within one hour, after which the SAMlseal 6 waterproofing membrane can be applied.

STEP 2: SAMlseal 6 is a polymer modified binder that meets Austroads S25E Specification for polymer modified spray seal binders (NSW RTA S25E spec and QLD Dept Main Roads S4.5S spec). This binder is spray applied to the SAMlprime

SAMI's Bridge Deck Waterproofing System - the complete system for concrete bridge decks and roadways



The recently completed Warragamba Dam Spillway project, near Sydney in NSW, required the versatility of SAMIprime QDP and the application of a polymer modified membrane to the bridge structure over the newly constructed spillway and to parts of the concrete access roadway surface around the site.

“...a quarter of the cost and easy to apply”

treated bridge deck and then covered with aggregate. The bridge deck is now waterproofed and trafficable. The surface can either be left as a spray seal finish or it can be paver laid with asphalt.

NSW Roads and Traffic Authority Bridge Branch has approved SAMIseal 6 as a spray applied waterproofing membrane for use on RTA funded works.

It is recommended because of its superior properties and performance for this type of treatment.

The RTA's QA Specification B344 "Bituminous Waterproofing Membrane for Concrete Bridge Decks" also enables other modified binders to be nominated by the contractor for approval. SAMIseal S45R, a crumb rubber modified binder, has been approved for use under this specification.

Ready for traffic the same day

Where the bridge deck is to have asphalt surfacing, SAMI's Bridge Deck Waterproofing System can be paver laid with

asphalt the same day. Once the quick dry prime has cured, the waterproofing membrane can be sprayed, covered with aggregate, rolled and then the asphalt surfacing operation can follow immediately.

Roadways application

SAMI's waterproofing system is also used to waterproof concrete roads that are to be overlaid with dense grade asphalt, stone mastic asphalt or where a spray seal surface is to be the required surfacing.



For further information on any of the products featured in this Case Study or any of SAMI's other specialist road maintenance products and services, please contact:

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