

AAPA 2017 QLD INNOVATION AWARD WINNER



FORMULATION OF PRE-BLENDED CRUMB RUBBER BINDER THAT IS STORAGE STABLE DURING PROLONGED HEATING AND TRANSPORT

The modification of crumb rubber in bitumen improves the bitumen properties so that it is more durable and less prone to bleeding, cracking and stone loss. Its application was, however, limited in that it would spoil if transported further than 300km from the point of manufacture. A new formula overcomes this limitation, compliant with the S1.8R specification, enabling it to be transported long distances in specially modified road tankers.

SAMI supplied about 2 million litres of this binder from the Brisbane factory to various resealing sites across the south-west of Queensland. The binder was transported up to 1100km without the rubber particles dropping out of suspension or the binder properties degrading during transport. The binder was sprayed by SRS as part of their resealing project SWTD - 1089 for the Queensland Department of Transport and Main Roads.

SAMI's storage stable pre-blenched crumb rubber binder (CRB) can now be supplied for use far beyond the 300km supply range from the point of manufacture. CRB can now be used in resealing the rural road network outside Brisbane, resulting in:

- increased life of reseals, reducing the cost of road maintenance and using fewer non-renewable aggregates
- reduction in the amount of expensive, imported polymer
- increasing reuse of tyres, reducing demand on landfill.