



USED FOR



Rutting



Fuel Resistant

ENVIRONMENTS



Industrial



Ports



Airports

BarrierBind

Advanced modified binder for fuel-resistant asphalt

BarrierBind is a modified bitumen designed for use in fuel-resistant asphalt. When incorporated into conventional asphalt mixes, BarrierBind significantly enhances fuel resistance beyond the performance achievable with standard bitumen binders.

This improved fuel resistance is complemented by BarrierBind's superior ability to withstand heavy loads under very low traffic speeds, such as those commonly experienced at heavy-vehicle fuelling stations.

Where to use BarrierBind

- Fuel-exposed areas
- Fuel stops, container ports, airports, freight yards, terminal facilities
- Low-deflection bases (less than 1.0 mm), as BarrierBind does not provide fatigue resistance beyond that of conventional bitumen-based asphalt

Benefits

- Fuel-resistant properties
- Improved rut resistance
- Easy workability
- Efficient construction – Enables easy laying and compaction with conventional paving equipment using standard paving techniques

Specification

Typical properties of BarrierBind

Property	Method	Specification
Viscosity mPas (at 165°C 20rpm)	AGPT/T132	< 200 MPAs
Softening point (Residual binder)	ASTM D36	60 - 80°C

Properties



Polymer
Modified



Hot
Bitumen

Handling

For safe handling of bituminous materials, please refer to the [Road Science polymer modified safety data sheet](#) and the [Best practice guideline: Safe Handling of bituminous materials used for roading \(BPG01\)](#)

BarrierBind - Dense asphalt mixes	
Maximum safe handling temperature	180°C
Pumping binder temperature	150°C - 160°C

For mixing and compaction temperature guidance, refer to the [Road Science asphalt binder mixing and compaction temperatures](#) document.

Circulation

BarrierBind should be circulated for at least 1 hour prior to commencing mixing.

Heating

BarrierBind is handled at elevated temperatures and all safety precautions should be taken. The heating of BarrierBind, especially from cold, needs to be undertaken slowly with the rate of heating not exceeding 10°C per hour. Pulsed heating cycles are preferred when using burner tubes.

Storage

BarrierBind	
Medium term storage temperature (0 to 5 days)	150°C - 160°C
Long term storage temperature (beyond 5 days)	<150°C
Critical: Long term storage	
If there is a need to postpone manufacture beyond 5 days, the storage temperatures of BarrierBind should be dropped immediately to <150°C. If there is considerable delay; it may be economic to drop the product temperature to ambient and reheat when the binder is about to be used.	

Equipment

Conventional manufacture and paving equipment.

Treatment Selection + Mix Design

If you're unsure which treatment solution is best suited for your project — considering factors such as traffic volumes and asset management — consult a member of the Road Science Product Development Team. They can assist in determining the appropriate treatment selection and guide you through the mix design process.

Sampling

For managing bitumen quality, please refer to the [Waka Kotahi NZ Transport Agency Q05 specification for managing bitumen quality report](#)

Samples should be taken following transfer from storage or transport. Testing should only be carried out by an IANZ registered laboratory that is experienced in handling and testing polymer modified binders.

Need more information?

At Road Science, we're committed to providing innovative solutions backed by engineering expertise. If you have any questions about this product, need technical guidance, or want to discuss how it fits your specific project needs, our team is here to help. Contact us today for expert advice and tailored support. Contact us via **0800 180 200** or visit our website at roadscience.co.nz to learn more.

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