



USED FOR



Dust Reduction



Waterproofing



Pot Holes

ENVIRONMENTS



Rural

DustSeal

Proven dust suppression treatment for cleaner, safer unsealed roads

DustSeal is a reliable and effective treatment engineered to suppress airborne dust on unsealed roads. Applied as part of routine maintenance, the process includes grading, compaction, and aggregate placement, finished with a specialised bitumen emulsion capping. The result is a durable, dust-free mastic surface that improves safety, extends maintenance intervals, and reduces lifecycle costs.

By locking in fine particles, DustSeal also protects surrounding land from dust contamination and prevents sediment runoff into nearby waterways. It delivers a cleaner, more stable unsealed road surface with fewer disruptions - making it a practical and environmentally responsible solution for managing rural and low-volume road networks.

Where to use DustSeal

- Dust suppression for unsealed roads
- Semi-waterproofing binder within an unsealed road, minimising wash-off of fines
- Extended maintenance cycles – Acts as a binding agent, increasing the time between maintenance operations

Benefits

- Minimises dust emissions from unsealed surfaces, improving air quality and visibility
- Extends maintenance intervals
- Protects agricultural + horticultural areas by minimising dust impact
- Reduces road surface degradation
- Minimises environmental impact by preventing the loss of fines into adjacent waterways and drainage systems

Specification

Typical properties of DustSeal

Property	Method	Specification
Binder content	In-house method	> 68%
Viscosity @ 40 °C	In-house method	> 100 cps

Properties



Handling

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

DustSeal	
Normal safe handling temperature	80°C
Maximum safe handling temperature	90°C
Pumping binder temperature	65°C - 90°C
Normal spray temperature	75°C - 90°C

Circulation

DustSeal should be circulated for at least 10 minutes prior to commencing spraying. Never allow DustSeal to freeze, as due to the presence of water in the emulsion, the emulsion will break.

Heating

DustSeal is water based and therefore must not be heated beyond 100°C or else the emulsion will boil and the product performance will be dramatically reduced.

Storage

DustSeal	
Short term storage temperature (up to 2 days)	75°C
Medium term storage temperature (up to 5 days)	< 20 - 50°C
Long term storage temperature (beyond 5 days)	20 - 40°C

Application

DustSeal is normally sprayed at an application rate of 3 litres/m², this rate is based on emulsion volume sprayed, not residual binder.

Although 3 litres/m² is in normal chip sealing terms a high application rate, the presence of fines within the unsealed pavement will prevent run-off being a problem.

Equipment

Conventional bitumen / emulsion sprayer

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

Samples should be taken following transfer from storage or transport. PPE as defined in the Material Safety Data Sheet should be worn when sampling DustSeal including face shield as the product is transferred at slightly elevated temperatures and splashes are always a risk.

Testing should only be carried out by an IANZ registered laboratory that is experienced in handling and testing bitumen emulsions For managing bitumen quality, please refer to the Waka Kotahi NZ Transport Agency Q05 specification for managing bitumen quality report

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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