



#### USED FOR



Waterproofing



Cracking



Chip Loss

#### ENVIRONMENTS



Residential



Rural

# FlexiSeal

Advanced polymer modified bitumen for chip sealing - available at 2, 3, or 4% polymer

FlexiSeal is a high-performance, hot-applied polymer-modified bitumen, specifically engineered for chip sealing applications that demand exceptional durability and long-lasting performance. Utilising 130/150 grade bitumen as the base, FlexiSeal incorporates advanced polymer modification to significantly improve binder adhesion, flexibility, and long-term performance under high-stress conditions.

Designed to meet the challenges of extreme climatic conditions and heavy traffic, FlexiSeal is the ideal solution for all chip sealing techniques.

#### Where to use FlexiSeal

- All chip sealing techniques - especially in extreme climatic conditions
- Cracked or high deflection surfaces
- Suitable for all sealing techniques including; two coat seals, racked-in seals, single coat seals, sandwich seals, and first coat seals

#### Benefits

- Ready-to-use – Delivered at a temperature of 180°C, ensuring easy handling
- Can be produced with polymer content 2, 3, or 4%

## Specification

Typical properties of FlexiSeal

Property	Method	Specification
Softening point (°C of cured binder)	ASTM D36-2006	> 40
Torsional recovery %	AGPT/T154	>10%

## Properties



## Handling

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

FlexiSeal	
Maximum safe handling temperature	185°C
Pumping binder temperature	>150°C
Normal spray temperature	150°C - 185°C
Application temperature	Pavement temperature 17°C + rising

## Circulation

FlexiSeal should be circulated for at least 10 minutes prior to commencing spraying.

## Heating

- Heating needs to be undertaken slowly with a rate of no more than 10°C per hour
- FlexiSeal is a polymer-modified product and is therefore highly viscous. The viscous nature means that FlexiSeal is reluctant to move away from a heat source; hence there is higher risk of 'cooking' the polymer than would be experienced when handling conventional bitumen.
- If the tank is fitted with an agitator, then this should be used when heating above 140°C. This will ensure good FlexiSeal flow over the flame tubes, thereby reducing the likelihood of localised over-heating and product degradation.
- Electric heating is always preferred over flame tubes for heating FlexiSeal due to the lower surface temperatures.
- Under no circumstances should you exceed 320°C on the flame tube surface.

## Storage

FlexiSeal	
Short term storage temperature (up to 2 days)	150 - 185°C
Medium term storage temperature (3 to 5 days)	150 - 160°C
Long term storage temperature (beyond 5 days)	150°C

## Application

Refer to the seal design application rates for the specified job.

## Equipment

Conventional bitumen 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 FlexiSeal 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-accredited 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](http://roadscience.co.nz)** to learn more.

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