



USED FOR



Reduced Emissions

ENVIRONMENTS



Residential



Industrial



Motorway



Roundabouts
& Intersections



Airports



Ports



BioBind is a revolutionary, low-carbon bitumen replacement - the sustainable solution for our road infrastructure.

In an era of growing environmental concern, BioBind offers a game-changing solution that reduces carbon emissions without compromising performance or durability.

Made from renewable resources, with the primary component coming from trees, BioBind not only reduces the environmental footprint associated with traditional fossil fuel-based bitumen, but its cutting-edge formulation also boasts significantly lower embodied carbon. This makes it a powerful ally for projects striving to meet ambitious decarbonisation goals.

If you're looking for a more environmentally friendly bitumen-based binder - then BioBind is for you.

Where to use BioBind

- As an asphalt binder replacement
- As a low-carbon product alternative

Benefits

- Meets all NZTA M1 and M1A grades
- Seamless substitution for regular bitumen
- Utilises renewable materials
- Contains less embodied carbon than traditional fossil fuel-based bitumen
- Significant carbon savings

Specification

BioBind can be blended to meet your required NZTA M1 specification for bitumen, or NZTA M1A specification for performance graded asphalt binder.

Properties



Reduced Emissions



Hot Bitumen

Handling

For safe handling of bituminous materials, please refer to the [Best practice guideline: Safe Handling of bituminous materials used for roading](#) (BPG01)

BioBind	
Normal safe handling + mixing binder temperature	
Varies depending on binder grade supplied. Refer to the specific asphalt mix design report recommended temperatures.	
Maximum safe handling temperature	185°C
Normal pumping temperature	150°C

Circulation

This product is prone to some settling when left at heat unstirred. It is important to mix BioBind prior to use, either by agitators or recirculation.

Heating

The reheating of BioBind, especially from cold, needs to be undertaken slowly with the rate of heating not exceeding 10 degrees per hour.

Pulsed heating cycles are preferred when using burner tubes.

Storage

BioBind	
Short term storage temperature (up to 2 days)	
Refer to the specific asphalt mix design report recommended temperatures.	
Medium term storage temperature (3 to 5 days)	130°C max
Long term storage temperature (beyond 5 days)	130°C max

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.

Application

Follow NZTA M10 guidance on manufacture and construction processes. Refer to the specific asphalt mix design report for binder application rate.

Sampling

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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