



Weather[®] Barrier

Weather Barrier is an environmentally friendly nano material specifically engineered to speed up curing of the Road Science chipseal bitumen emulsions.

Weather Barrier's unique physical and chemical properties promote faster coalescence of the bitumen in the emulsion, allowing it to set up more rapidly.

It is a liquid that is applied to the top of a newly sprayed emulsion seal using accurate spraying equipment. It is sprayed at typical ambient temperatures.

Where to use Weather Barrier

- Any chipsealing operation where a faster cure is required using Road Science's standard or polymer modified emulsions
- High risk sites such as shaded areas and those that require trafficking soon after application
- In temperature and humidity conditions that would typically rule out chipsealing such as shoulders of the seasons and later at night.

Note: The option of using Weather Barrier is available in Zeus. Continue to use Zeus for sealing decision making.

Benefits:

Weather Barrier's benefits include:

- Increased efficiency by speeding up chipsealing operations
- Increased productivity by increasing the total sealable hours
- Reduce potential failure on high risk sites such as shaded areas
- Increase confidence of success on mobile patching operations
- Reduce traffic management costs by allowing sites to reopen to traffic sooner than standard chipsealing

Handling

WEATHER BARRIER	
Normal handling temperature	Ambient
Normal pumping temperature	Ambient

No heating of the material is required.

Weather Barrier comes as a two part system.

Blend both Part A and Part B at a ratio 1:1.

Note: Premixed Weather Barrier can also be supplied but this does have a shorter shelf life (refer to the Storage section).

Settlement may occur in containers over time which can be remedied by gentle stirring/ circulation or regular rotation of storage containers. Ensure all containers are well mixed prior to blending and use.

Storage

WEATHER BARRIER	Temperature	Shelf life
Part A & Part B	5 to 35°C	6 months
Blended Weather Barrier	5 to 35°C	3 months

Settlement may occur in containers over time which can be remedied by gentle stirring/ circulation or regular rotation of storage containers.

Application

Weather Barrier can be applied to both standard Road Science emulsions and polymer modified emulsions (PMEs)

Weather barrier is applied by sprayer to the top of the seal as soon as the aggregate is spread.

Recommended Application rate: 4.35% by weight of emulsion

Weather Barrier Application Rate	
Emulsion Application Rate	Weather Barrier Application Rate
1L/m ²	0.045L/m ²
2L/m ²	0.090L/m ²
3L/m ²	0.135L/m ²

Application rate tolerance ±25%

Not required on single coats with an application rate of less than 1L/m².

Where multicoat seals are being constructed on the same day using less than 1L/m² per layer Weather Barrier can be applied to just the top seal layer.

For multicoat seals where the application rate for each layer is greater than 1L/m² then Weather barrier should be applied to each layer.

Emulsion selection should be the standard option for your weather and traffic conditions on site as per the seal design.

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Sprayer requirements:

The sprayer must be able to provide accurate and even application over the surface of the seal.

Note: Over application of Weather Barrier can slow down the overall curing.

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