

Cutback Bitumen

Road Construction & Maintenance Application

Bitumen is 'cutback' by adding controlled amounts of petroleum distillates such as kerosene. This is done to reduce the viscosity of the bitumen temporarily so it can penetrate pavements more effectively or to allow spraying at temperatures that are too cold for successful sprayed sealing with neat bitumen. The materials used to cutback bitumen evaporate after application to leave the remaining material similar in hardness to the original bitumen.



Typical characteristics

Application	Puma Cutback Products	Pavement Surface Suitability	Viscosity at 60°C (Pa.s)	Flashpoint (°C)	Max. Storage Temp. (°C)*	Application Temp. (°C)**
Priming & Tack Coating	Puma Bitumen AMC00	Low Porosity	0.008 – 0.016	> 38	100	10 - 30
	Puma Bitumen AMC0	Medium Porosity	0.025 – 0.05	> 38	110	35 – 55
	Puma Bitumen AMC1	High Porosity	0.06 – 0.12	> 38	120	60 – 80
Primer Sealing & Pre-mixing	Puma Bitumen AMC2	Low Porosity	0.22 – 0.44	> 38	140	75 – 110
	Puma Bitumen AMC3	Medium Porosity	0.55 – 1.1	> 38	160	95 – 115
	Puma Bitumen AMC4	High Porosity	2.0 – 4.0	> 38	170	110 – 135
Sealing	Puma Bitumen AMC5		5.5 – 11.0	> 50	175	120 – 150
	Puma Bitumen AMC6		13.0 – 26.0	> 50	180	135 – 160
	Puma Bitumen AMC7		43.0 – 86.0	> 50	185	150 – 175

* Maximum temperatures for storage periods of up to 24 hours.

**The application temperatures shown in the above table follow standards which have been generally accepted by the industry. They should be followed when the product needs to be reheated. In some field situations cutbacks are sprayed at temperatures above these recommendations with good results, however adequate safety measures must be in place.

Applications and Key Benefits

Priming and Tack Coating

- Priming provides a surface more easily 'wetted' by a subsequent bituminous covering.
- Able to carry traffic for a short time
- Helps to control dust

Primer Sealing

- Used when temperatures are too cool or where traffic is likely to upset a primed surface
- Adequate protection of the pavement up to 6 to 12 months
- Can also be used in the manufacture of pre-mix asphalt

Sprayed Sealing

- Used extensively in sprayed sealing applications
- Applied in cooler weather conditions
- Provide improved initial stone retention due to their lower viscosity

Specification

Puma Bitumen cutbacks are manufactured to comply with the requirements of Australian Standard AS 2157 Cutback bitumen.

Health & Safety

For a full description of hazards associated with the use of bituminous binders, please refer to the appropriate safety data sheet (SDS) available on the [Puma Bitumen website](#).

Quality assurance

Puma Bitumen is known in the industry for consistently delivering high quality products. Our products can be relied upon to perform under the most diverse and demanding road conditions in Australia. This is possible thanks to our innovative product technology, comprehensive quality assurance programmes, efficient operations and a sophisticated production process unique to Puma – all supported by our highly skilled and experienced staff.

The Puma Energy Global Bitumen Technology Centre based in Altona, Victoria, is where we conduct industry-leading research and development. It is also from here that we provide technical expertise and support to our customers throughout Australia and across the world. Our team of technical specialists is dedicated to ensuring our products are thoroughly tested at every stage – from the selection of crude oil at the start of the production process, right through to customer supply.

Our product stewardship and rigorous quality management practices reflect our commitment to delivering the highest quality products that perform on the road. Our dedication to quality is recognised by our accreditation to Australian Standard AS/NZS 9001.

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