Going further
— for better performing roads

PUMA Bitumen

CARBONBIND® S15R

POLYMER MODIFIED BINDER
Sprayed Seal Applications

Puma CARBONBIND® S15R incorporates sustainability grown biogenic (plant grown) material. The CARBONBIND® technology allows atmospheric CO_2 captured by plants to be permanently stored in road pavements. This significantly reduces the carbon footprint of the overall binder and seals that contain it.

CARBONBIND® S15R is suitable for use in extreme stress seal applications. It can also be applied to alleviate the reflection of cracks on existing cracked surfaces where the cracks are active.

CARBONBIND - S15R

Key Benefits

Performance Benefits

- Every tonne of CARBONBIND® S15R repurposes the equivalent of 23 passenger vehicle tyres.
- Reduced carbon footprint of 230kg CO_2 compared to conventional S15R.
- Excellent resistance to reflective cracking
- Suitable for application in extreme stress sprayed seals (XSS)

Application Benefits

- Unique manufacturing process results in improved travel stability of this S15R product

Typical characteristics

Property	Typical Value	Specification Limits	Test Method
Softening Point (°C)	**59**	**55 - 65**	**AG:PT/T131**
Torsional Recovery at 25°C (%)	**38**	**25 - 55**	**AG:PT/T122**
Viscosity at 165°C (Pa.s)	**1.6**	**max. 4.5**	**AG:PT/T111**
Consistency 6% at 60°C (Pa.s)	**1350**	**min. 800**	**AG:PT/T121**
Stiffness at 15°C (kPa)	**150**	**max. 180**	**AG:PT/T121**

Specification

CARBONBIND® S15R is manufactured to comply with Austroads ATS-3110 S15R grade.

Storage & Handling

The storage of bituminous binders for prolonged periods at elevated temperatures should be avoided as quality may be adversely affected. Bituminous binders should be stored at the lowest temperature that enables practical use.

Maximum Storage Temperature Recommendations	
Storage temperature for up to 48 hours	**160 °C – 175 °C**
Storage temperature for up to 4 days	**145 °C – 155 °C**
Minimum pumping temperature	**150 °C**
Temperature for spraying	**180 °C – 190 °C**

Refer to AAPA Advisory Note 7 for further information.

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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