

OLEXOBIT® AB4

Polymer Modified Binder

Asphalt Applications

Description

OLEXOBIT® AB4 is a polymer modified binder (PMB) that is designed for use in asphalt applications to provide increased cohesive strength and durability in open-graded asphalt. When used in dense-graded asphalt, OLEXOBIT® AB4 delivers medium levels of resistance to rutting and fatigue.

Application

OLEXOBIT® AB4 is recommended for use in:

- Open-graded asphalt at all pavement temperatures where the traffic loading is either
 - less than 1000 HV/lane/day and generally moving at a speed > 25km/h, or
 - less than 500 HV/lane/day and generally moving at a speed ≤ 25km/h
- Open-graded asphalt at pavement temperatures less than 52°C under all conditions of traffic loading
- Dense-graded asphalt over sound pavements with maximum pavement temperatures below 58°C

For further advice on the appropriate application of OLEXOBIT® AB4, please contact BP Bitumen.



Key Benefits

Performance Benefits

- Improved cohesive strength over conventional bitumen
- Enhanced durability
- Reduced binder drainage in open-graded asphalt
- Thick cohesive binder to reduce oxidative effects
- Excellent resistance to fatigue in dense-graded asphalt

Application Benefits

- Improved storage and travel stability over conventional SBS-modified binders
- Low-fuming formula

Specification

OLEXOBIT® AB4 is manufactured to comply with Austroads AP-T41 A20E grade.

Typical Characteristics

Property	Typical Value
Softening Point, °C	80
Torsional Recovery at 25°C, %	55
Viscosity at 165°C, Pa.s	0.5
Consistency at 60°C, Pa.s	4,500
Stiffness at 25°C, kPa	15
Segregation, %	0.5

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Storage & Handling

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

Maximum Storage Temperature Recommendations

Storage for up to 90 days	110°C
Storage for up to 7 days	140°C
Storage for up to 4 days	160°C
Storage for up to 24 hours	180°C
Maximum temperature	190°C

Application Temperature Recommendations

Minimum pumping temperature	150°C
Asphalt mixing	155°C - 165°C
Asphalt compaction	140°C - 160°C

Health & Safety

To ensure hot bitumen is used in a safe and efficient manner the following safety precautions must be followed:

- **Wear suitable personal protective equipment (PPE) at all times.** Full skin protection is required to avoid accidental burns when transferring or handling hot bitumen.
- **Always prevent contact between water and hot bitumen** by checking the contents of the previous load before loading bituminous products into tankers and by following procedures to avoid violent boil-over of tanks.
- **Avoid exposure to fumes** by standing back on the gantry or upwind until the vapours have dispersed.
- **Minimise bitumen fume** by heating bitumen and asphalt products to the recommended temperatures.
- **Minimise the use of diesel** when cleaning equipment as this contributes to the bitumen fume.

Safe Handling of SBS-modified PMBs

Polymer modified binders incorporating SBS polymer require close attention to their handling and application to avoid degradation of the binder and exposure to irritant fumes. When handling SBS based binders it is important to remember the following points:

- Know the product being handled
- Know the recommended storage and handling temperatures
- SBS-based PMBs have their own unique odour, however, they are safe to use when stored and handled according to recommendations

For a full description of hazards associated with the use of bituminous binders, please refer to the appropriate material safety data sheet (MSDS) available on the BP Bitumen website.

Quality Assurance

BP Bitumen is recognised nationally for its proven track record in delivering products of consistently high quality. Every day our products perform under the most diverse and demanding road conditions in Australia. This is attributable to a combination of our unique product technology, comprehensive quality assurance programs, operational efficiency and sophisticated production processes – all supported by our highly skilled and experienced staff.

We maintain an in-house national technical centre in Melbourne which focuses on R&D, as well as providing technical expertise and support to our customers throughout Australia. 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 delivery.

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

For further information, please contact us:

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