

arrb

Application Name:
RHINOPHALT®

Application Product:
**Penetrative Asphalt
Preservative**

TIPES Certificate No:
21/014583

Date: August 2021

OFFICES IN:
BRISBANE, SYDNEY, ADELAIDE, PERTH.

NATIONAL TRANSPORT RESEARCH
CENTRE AND HEAD OFFICE:
MELBOURNE
80A TURNER STREET
PORT MELBOURNE VIC 3207



arrb

This Certificate is issued by ARRB Group Ltd (ARRB) in relation to the annexed Application (Application) by the Applicant named in the Application (Applicant) in respect of the Applicant's requested evaluation by an ARRB Transport Infrastructure Product Evaluation Scheme (TIPES) Panel (PEP) of the Applicant's Product named in the Application (Product) for the uses and in the manner identified in the Application (Applicant's Claim).

This Certificate is issued by ARRB Group Ltd:

- a. to each of its member road authorities (Member Road Authority) and to no other person;
- b. in respect of the use of the Product in the manner described in the Application;
- c. subject to the scope of the PEP evaluation and to each of the conditions and qualifications set out in this Certificate and its attachments.

No representation or warranty is made in the Certificate to any person who is not a Member Road Authority. Other persons must obtain their own professional advice as to the suitability of the Product for uses by those persons.

RHINOPHALT® Penetrative Asphalt Preservative

Certification

ARRB Certifies to each ARRB Member Road Authority that:

1. the Product has been assessed by a PEP; and
2. the PEP has assessed the Product as being suitable for each use described in this Certificate and its attachments:
 - a. subject to any conditions and qualifications set out in this Certificate,
 - b. having regard to the scope of the PEP evaluation as set out in this Certificate, and
 - c. provided the Product is installed, used and maintained as set out in the Application and this Certificate.

Statement of TIPES Opinion

In the opinion of the TIPES Product Evaluation Panel, the product could substantially reduce the permeability and increase the durability of existing dense-graded asphalt surfacing layers when applied at the appropriate time.

Scope of PEP Evaluation

This certificate is issued by ARRB Group Ltd (ARRB) in respect of the product RHINOPHALT®, which is used as a penetrative asphalt preservative (PAP) and applied to ageing asphalt to extend the life of the surfacing layer.

The PEP evaluation included:

- factors relating to compliance with TIPES requirements
- assessment criteria and technical investigations
- typical applications and installation guidance

The key factors (including proponent's claims) assessed were:

- Factor 1 – International use and performance of the product, based on published literature as well as that supplied by the client.
- Factor 2 – A reduction in permeability of dense-graded asphalt occurs after the application of the product
- Factor 3 – Increased durability of the dense grade asphalt surface results from the application of product.
- Factor 4 – No adverse effects on the skid resistance properties of the asphalt result from the application of the product.
- Factor 5 – Records of performance of past application of the product internationally and in Australia.

Conditions and Qualifications

In addition to consulting ASI Solutions, the ASI RHINOPHALT® Asphalt Preservation Application Manual should be followed, with particular attention given to the following:

- Project specific 1 m² trial patches should be carried out on the existing surface prior to application, to determine the correct application rates and assess the effect on surface texture.
- The transverse distribution of the application vehicle needs to be checked prior to application and monitored to ensure even distribution, see checklists in Appendix A of the RHINOPHALT® Asphalt Preservation Application Manual
- Delivery certificates of materials need to be provided prior to application ensuring the product meets specifications.
- A specific Project Management Quality Plan (PMQP) shall be approved prior to the operation to ensure Witness and Hold Point are captured and any non-conformance reports (NCRs) are recorded and closed prior to project close out.

Assessment and Technical Investigations

The technical assessment of RHiNOPHALT®, in respect to this certification, is described in report: TIPES – RHiNOPHALT® Assessment, June 2021, ARRB Group Ltd.

Important Notes

This technical assessment included a field trial which demonstrated RHiNOPHALT® can be applied to existing dense grade asphalt surfaces and subject to the qualifications in this Certificate and its attachment provide the benefits as claimed by the Applicant.



The field trial showed that the skid resistance and surface texture remained high enough after applying RHiNOPHALT® for use in general conditions. The Applicant's User Manual should be consulted for use of the product in higher skid demand applications (such as roundabouts, steep grades, sharp corners and signalised intersections) and to provide on-going surface texture at all sites.

The results from the field trial suggest that RHiNOPHALT® helps to decrease aggregate loss when the treatment is applied to aged asphalt.

It should be noted that the field trial undertaken as part of this technical assessment was limited to a 1-year period and did not assess the longer term in-service performance benefits.

Special Conditions of Certification

1. This Certificate is issued expressly subject to the following conditions:
 - a. that a field trial is undertaken prior to the application of the product to determine application rates and the effect on surface texture
 - b. that appropriate and detailed quality control records are maintained with respect to the manufacture, site preparation and installation of ASI RHiNOPHALT®, as per the Asphalt Preservation Application Manual provided by the applicant, and that such records are promptly made available to ARRB as it reasonably requires.
2. This Certificate and the Technical Opinion are issued solely in respect of the Product identified by the Applicant as RHiNOPHALT® submitted for product evaluation under TIPES by the Applicant on 23 July 2019.

<p>Issued: Review: 3 years</p>	 Mark Steidle, National Leader - Road & Transport Certification ARRB Group Ltd	 Michael Moffatt, National Leader Smarter Safer Infrastructure ARRB Group Ltd
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General conditions of certification

1. This Certificate:

- a.
 - i. relates only to the Product and is expressly limited to the product having the composition, features and characteristics submitted in the Application ; and
 - ii. is not applicable to, or valid in respect of, any subsequent modification, variation, enhancement or redevelopment of the Product or any other product.
 - b. is valid only within Australia
 - c. must be read and applied in its entirety
 - d. is copyright to ARRB and is the sole and exclusive intellectual property of ARRB
 - e. is not licensed to the Applicant for the promotion or sale of the Product by the Applicant and the Applicant must not authorise its use to any other person or entity for any purpose whatsoever; and
 - f. is governed by the laws of the State of Victoria, Australia and the jurisdiction of the courts of that State and courts of appeal there from.
2. References to publications, documents, specifications, legislation, regulations, standards and other documents in this Certificate are, where relevant, references to the versions of those documents current at the date of issue of this Certificate, unless otherwise stated.
 3. Unless otherwise cancelled or modified by ARRB, this Certificate remains valid for a period of 3 years from the date of this Certificate provided that the Product and its manufacture and/or fabrication, including all related documentation and relevant parts and processes there of:
 - a. are maintained at or above the levels which have been assessed and found to be satisfactory by ARRB;
 - b. are checked as and when ARRB considers appropriate under arrangements that it will determine; and
 - c. are reviewed by ARRB at such frequency as it considers appropriate, at the cost of the Applicant which is documented within the standard terms for the TIPES scheme applicable at the time of review.
 4. ARRB has no liability whatsoever to the Applicant or to any other person for any loss or damage, including personal injury, howsoever arising in connection with the Product, (including its manufacture, supply, installation, use, maintenance and removal) whether direct or indirect, suffered by any person arising from the use of the product by that person in reliance upon the content of this Certificate
 5. ARRB provides no warranty to the Member Road Authorities, the Applicant nor to any other person, express or implied, concerning:
 - a. the existence or ownership of any patent, intellectual property or other rights subsisting in the product;
 - b. the rights of the Applicant to manufacture, supply, install, maintain or market the product; and
 - c. any works and constructions in which the product is installed, including their nature, design, methods, performance, workmanship and maintenance.
 6. Any information relating to the manufacture, supply, installation, use, maintenance and removal of the Product which is contained or referred to in this Certificate is the minimum required to be met when the product is manufactured, supplied, installed, used, maintained and removed. Such information does not in any way restate the requirements of the Australian Work Health and Safety (WHS) Act applicable at the time of issue of this Certificate, nor is it descriptive of any legislative or common law obligation or duty in operation at the date of issue or reissue of this Certificate. Conformity with information in this Certificate will not satisfy any statutory or common law duties or obligations.
 7. TIPES logo & symbol(s) use are governed by "The Conditions for Use by ARRB GROUP Ltd and TIPES Product Organisations" which forms part of this Certificate.



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