

# POLYPAVE

Interim TIPES Certificate
Certificate No: I 24/001

#### OFFICES IN:

ADELAIDE, BRISBANE, CANBERRA, LAUNCESTON, MELBOURNE, PERTH, SYDNEY, AND NEW ZEALAND

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## **POLYPAVE**

#### **PRODUCT SUMMARY**

This Interim Certificate relates to POLYPAVE, a proprietary (trademarked), non-toxic product which has been specifically formulated for the improvement of road pavements. When mixed in specific (designed) quantities with a General Purpose (GP) cement binder, POLYPAVE forms a stringed polymer which reduces moisture penetration into and through the stabilised layers.

### THIS INTERIM CERTIFICATE RELATES TO THE FOLLOWING RELATING TO THE ORIGINAL APPLICATION SUBMITTED:

- Compliance with TIPES requirements for application (including clear statement of technical claims for the product).
- The technical specification for usage, including mix design and suitability with contemporary industry stabilisation techniques.
- Evaluation criteria including laboratory testing on typical subbase quality crushed rock/crushed gravel specimens stabilised with GP cement and the POLYPAVE product in accordance with dosage guidance contained in the current product Design Guide (v.8 AU February 2024).

Nigel Powers

Governance Manager, TIPES

N.G.R

**Richard Yeo**Chief Operating Officer

Date of Issue

05/02/2024 for 12 months Richard For

This Interim Transport Infrastructure Product Evaluation Scheme (TIPES) Certificate is issued by NTRO and has been issued on assurance that compliance is still achieved with the conditions stated. The product has been assessed by a TIPES Product Evaluation Panel as being fit for its intended use as set out in the current Design Guide (v.8 AU February 2024).

#### **ORIGINAL TECHNICAL CLAIM**

The ingress of water is a major cause of pavement failure. Where cement treated crushed rock/crushed gravel pavement base and subbase layers stabilisation is undertaken in conjunction with POLYPAVE, the absorption of water is resisted in the cemented layer, as best demonstrated through the results obtained from the permeability and capillary rise laboratory testing undertaken as part of this evaluation.

#### STATEMENT OF TECHNICAL OPINION

POLYPAVE was evaluated by a dedicated, expert, TIPES Product Evaluation Panel (PEP). The PEP's Technical Opinion is that the product is fit-for-purpose if used specifically in accordance with the current POLYPAVE Design Guide (v.8 AU of February 2024).

The PEP has recommended the issue of an Interim TIPES Certificate, with the special conditions outlined later in this document. This includes a Field Observation. It is important to note that the Field Observation does not specifically assess the longer-term in-service performance benefits of stabilisation with POLYPAVE.

The above Statement of Technical Opinion was issued in respect of POLYPAVE being the particular Product submitted for evaluation under TIPES by POLYPAVE International Pty Ltd. It is expressly restricted to the Product having the same composition, features, and characteristics as when submitted for the original TIPES evaluation, and usage as specified within the latest product Design Guide (v.8 AU February 2024). The original Technical Opinion is not applicable to, or valid in respect of, any subsequent modification, variation, enhancement or redevelopment of the Product and any representation that this Technical Opinion is referable to any other product is expressly forbidden.

#### **APPLICATION GUIDANCE**

#### INTENDED APPLICATION

POLYPAVE is intended for use in accordance with the latest version of the Design Guide (version 8 AU dated February 2024) current at the time of the PEP evaluation, which includes the properties of the parent materials that can be stabilised using the product and the mix design methodology to provide positive outcomes.

#### MATERIAL SAFETY DATA SHEET

As provided with original application.

#### PRODUCT MANUFACTURE

ISO Certificate of Registration as provided with original application.

#### NATIONAL AND LOCAL TECHNICAL GUIDANCE

Consideration of the following technical guidance documentation is required, where applicable:

- Austroads Guidance (Pavement Technology series).
- AusStab guidance on pavement stabilisation using cement products/
- pertinent state road authority and/or local specifications on pavement design and material specifications for cement bound pavement layers.

## SPECIAL TECHNICAL CONDITIONS OF INTERIM CERTIFICATION

- The award of Interim Certification is based on the original application supplied to the PEP and evidence within. This was further supported by the satisfactory completion of an advised schedule of laboratory testing and fine-tuning of the POLYPAVE Design Guide (up to and including v.7 AU) as guided by the PEP.
- 2. The following special conditions apply:
  - a Field Observation (by a member/s of the original PEP) must take place within the 12-month duration of this Interim Certificate, at a suitable site/s, as agreed in advance with NTRO Certification. The results of this Field Observation would then inform a PEP recommendation regarding the award of Full Certification,
  - b. the Field Observation site/s must include:
    - submission of information relating to host material properties and bound material mix design results
    - a control segment (to compare standalone cement to the POLYPAVE treated segment)
    - demonstration of reduction in permeability in the site mix design, including testing done for control mixes (standalone cement)
    - collection and submission of site data, including as required to ascertain the impact on workability including working time
    - taking of site photographs and video both during and immediately after construction
    - undertaking and recording of a site inspection 3 months after opening to traffic of the site, including condition notes, taking of site photographs
- the product continues to demonstrate conformance with the performance requirements originally outlined and as observed thus far,
- is used and continues to be used in accordance with the latest version of the Design Guide issued by POLYPAVE (v.8 AU February 2024); and
- POLYPAVE maintains a register of all Australian sites where the product is used during the Interim Certification, which can be requested by NTRO Certification at any time.

## SPECIAL COMPLIANCE CONDITIONS OF INTERIM AND FULL CERTIFICATION

 It is a continued condition of this Interim, and any subsequent Full, Certification that records are kept of all applications of POLYPAVE in road construction in Australia, by POLYPAVE International Pty Ltd and/or their registered users. The records shall include material classification and mix design and quality assurance data that allow the verification of the quality of production and installation of the product. In addition, any post-construction monitoring or assessments should also be maintained. This should include a representative untreated section of road to act as a control against which the benefits of the treatment may be compared. These records shall be made available to NTRO Certification on request and will be the subject of review for re-accreditation (i.e. at the end of the term of a Full Certificate) or should any technical deposition be made regarding any stated issues with the performance of the product and its utilisation.

## GENERAL CONDITIONS OF CERTIFICATION

- 1. This Interim Certificate:
  - relates only to the product that is named and described on the front page of, and within this Certificate, and is expressly restricted to the product having the composition, features and characteristics when originally submitted for TIPES evaluation
    - is not applicable to, or valid in respect of, any subsequent modification, variation, enhancement, or redevelopment of the product
    - any representation that this certificate is referable to any other product is expressly forbidden
  - is valid only within Australia
  - has to be read, considered, and used as a whole document, it may be misleading and will be incomplete to be selective
  - is licenced for the promotion or sale of the product only to the company, firm, organisation or person named on the front page. No other company, firm, organisation, or person may hold or claim that this Interim Certificate has been issued to them.
  - is copyright and property of NTRO.
  - is governed by the laws of the State of Victoria, Australia, and the jurisdiction of the courts of that State and courts of appeal therefrom.
- Publications, documents, specifications, legislation, regulations, standards, and the like referenced in the original Product Application were those that were current and/or deemed relevant by NTRO at the date of Application.
- Any Full Certificate ultimately issued will remain valid for a 3-year period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:
  - are maintained at or above the levels which have been assessed and found to be satisfactory by NTRO
  - continue to be checked as and when deemed appropriate by NTRO under arrangements that it will determine
  - are reviewed by NTRO as and when it considers appropriate.

- 4. NTRO has used due skill, care and diligence in preparing this Interim Certificate, but no warranty is provided.
- 5. In issuing this Interim Certificate and any subsequent Full Certificate, NTRO is not responsible and is excluded from any liability to any company, firm, organisation, or person, for any matters arising directly or indirectly from:
  - the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
  - the right of the Interim Certificate holder to manufacture, supply, install, maintain, or market the product/ system actual installations of the product/ system, including their nature, design, methods, performance, workmanship and maintenance
  - any works and constructions in which the product/system is installed, including their nature, design, methods, performance,

- workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance, and removal.
- 6. Any information relating to the manufacture, supply, installation, use, maintenance, and removal of this product/system which is contained or referred to in this Interim Certificate are the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Australian Work Health and Safety (WHS) Act 2010, or of any other statutory, common law or other duty which may exist at the date of issue of this Interim Certificate; nor is conformity with such information to be taken as satisfying the requirements of these Acts or of any statutory, common law or other duty of care.
- 7. The TIPES logo & symbol(s) use are governed by any conditions for usage stated by NTRO.