

## PTS Product Assessment Certificate

Product Acceptance Scheme in accordance with Manual for Contract Documents for Highway Works Specification for Highway Works (MCHW SHW) Volume 1 Sub-Clause 104.15 and 104.16

**Roadmender Asphalt**

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Technical Assessment Body (TAB)  
Product Area 23 Road Construction Products

**Product Family: RoadMender Asphalt**

**Product Name: RoadMender Polymer Modified Mastic Asphalt to BS EN 13108-6**

**Certificate Reference: PA 946 0004 rev 1**



Pavement Testing Services (PTS) Ltd has awarded this

**Product Assessment Certificate (Second Issue)**

to the Company named above for the product described herein.

This product has been assessed by PTS Ltd as being fit for its intended use provided they are manufactured, installed and used as set out in this Certificate.

The issue of this Certificate under Specialist Group PTSSG 946 - *Hot and Cold Laid Asphalt Surfacing Material for Potholes Repairs, Ironworks, Utility Reinstatements, Airfields Repairs, Patching, Local Repairs and Other Similar Use including Narrow and Micro Trenches (proprietary materials)*, which sets out Guidelines and Criteria for the assessment, has been authorised by the PTS Technical Supervisory Panel.

On behalf of PTS Ltd

Dr A J Sewell Managing Director

Date: 13 May 2021

Date Granted – 22 December 2017

Expiry Date – 21 December 2023

Next Surveillance – 21 December 2021

Next Certificate Review Due by – 21 December 2021

**Certificate Reference – PA946 0004 Second Issue, Revision status v7 13.05.21**

This Product Assessment Certificate is issued by Pavement Testing Services Ltd (PTS Ltd) under PTS Product Acceptance Scheme (PTSPAS) in accordance with the MCHW SHW Sub-Clause 104.15 and 104.16, supported by PTS Technical Supervisory Panel (PTSTSP) which includes representation from Highways England (HE), Association of Directors of Environment, Economy Planning and Transport (ADEPT), Road Surface Treatments Association (RSTA), Mineral Products Association (MPA), Joint Authorities Group (JAG), Midlands Highways Alliance (MHA), HAUC(UK) SROH Working Group, HAUC(UK) SROH Innovations Working Group and Transport Scotland.

Sub-clause 104.16 (e) requires that *“The scheme must have a technical supervisory panel that provides technical oversight on the operation of the scheme and formally consents to the issue of assessment and certification requirements of the specialist groups developing the assessment and certification requirements. This panel must include a balanced representation of key end users, recognized industry experts and those responsible for the highways on which such products will be used or installed”*.

PTSPAS Product Assessment Certificates are each subject to a review every three years, with annual interim surveillance.

## PRODUCT APPLICATIONS

Potholes repairs, surfacing around ironworks, bedding mortar and backfill, footway surface course, utility reinstatements, airfield repairs, patching, local repairs and any other similar use including narrow and micro trenches.

- MCHW SHW Volume 1 Clause 946, amendment July 2019
- Department for Transport – New Roads and Street Works Act 1991
- Specification for the Reinstatement of Openings in Highways (SROH), Fourth Edition, May 2020
- RSTA ADEPT HE Code of Practice for Ironwork Systems Installation and Refurbishment, May 2017

## KEY FACTORS ASSESSED

- Reclaimed Asphalt classification to BS EN 13108-8 : 2016
- Polymer Modified Bitumen manufacturing process and classification to BS EN 14023 : 2010
- Factory Production Control (FPC) and Quality Management System (QMS) Audits
- Current BSI QMS accreditation to BS EN ISO 9001 : 2015
- BSI Certificate Number FM 610607 and recent audit
- BSI Certificate of Conformity of the Factory Production Control 2797CPR640249 in respect of BS EN 13108 – Bituminous Mixtures. Material Specifications; BS EN 13108-1 Asphalt Concrete, BS EN 13108-4 Hot Rolled Asphalt, BS EN 13108-5 Stone Mastic Asphalt, BS EN 13108-6 Mastic Asphalt and recent audit
- Installation Method Statements (IMS) for manufacture and product installation
- Installation Trials
- Review of supporting documents
- Design and Development of Products and Services compliance with BS EN ISO 9001 : 2015
- BS EN 13108-6 : 2016 Bituminous mixtures - Material Specifications. Mastic Asphalt includes limitations on Reclaimed Asphalt additions. This Certificate comprises the assessment of surface course material incorporating up to 80% Reclaimed Asphalt.

## 1. TECHNICAL SPECIFICATION

The RoadMender polymer modified mastic asphalt is a BS EN 13108-6 : 2016 bituminous mixture consisting of BS EN 13108-8 : 2016 compliant reclaimed asphalt, aggregate to BS EN 13043 : 2002 and polymer modified bitumen to BS EN 14023 : 2010

- Department for Transport – New Roads and Street Works Act 1991
- Specification for the Reinstatement of Openings in Highways (SROH), Fourth Edition, May 2020  
RSTA ADEPT Highways England - Code of Practice for Ironwork Systems Installation and Refurbishment, May 2017
- MCHW SHW Clause 946, amendment July 2019

## 2. MANUFACTURE

- 2.1 Procedures and processes covered under Factory Production Control Certificate No 2797CPR640249
- 2.2 The Quality Management System (QMS) of the manufacturer has been assessed and certified as meeting the requirements of BS EN ISO 9001: 2015 by BSI (Certificate FM 610607).

## 3. DELIVERY AND SITE HANDLING

- 3.1 The product is delivered to site in 1-tonne pallets of 20kg bags, as specified in the Certificate Holder's QMS and in house documented procedure. Products are colour coded labelled with the product type, name and batch number. Full product information is recorded on the delivery note.
- 3.2 The product should only be laid by competent installers who are trained in the operation of the type of mastic mixer to be used. Installer competencies, certificates and skills cards are also recorded. Please refer to the following documents to be used in conjunction with the Operating Instructions & Operation Method Statement for the type of mastic mixer used:
  - 6mm RoadMender Mastic Installation Method Statement
  - 4mm RoadMender Mastic Installation Method Statement

## 4. INSTALLATION

- 4.1 Installation shall only be carried out in dry conditions, at ambient temperatures above  $-5^{\circ}\text{C}$ , in lifts up to 50mm thick and must follow Contractor's specific Installation Method (IMS) taking into account requirements of MCHW SHW Volume 1 Clause 903 and Clause 946, SROH, Code of Practice and/or BS 594987 : 2015 + A1 : 2017
- 4.2 The exposed surface must be clean and free of ice, standing water, loose material and any contaminants which may affect the bond between the product and the existing substrate. All the exposed edges, joints and substrate must be treated with a suitable bond or tack coat product before installation.
- 4.3 The heating equipment must be suitable for heating the product at the manufacturer's recommended temperature for the recommended period of time.
- 4.4 The product must only be installed by approved installers, competent and experienced in asphalt products installation. Registration and skill cards (National Highway Sector Scheme NHSS23 / Construction Skills Certification Scheme CSCS), New Roads and Street Works Act 1991 (NRSWA) operatives and supervisors accreditation requirements must be agreed with the Overseeing Organisation.
- 4.5 Where current IMS does not cover all installation activities, the specific IMS will be developed and incorporated in the QMS as appropriate, in conjunction with the Certificate Holder.
- 4.6 The product must be compatible with the surrounding material.
- 4.7 Suitable treatment must be applied (4mm, 6mm, 10mm, 14mm or 20mm pre-coated chippings or 1mm to 3mm calcined bauxite) to provide the required skid resistance.
- 4.8 On work completion, the installer shall carry out a visual inspection of the finished surface for uniformity and any discernible defects and shall take immediate actions if necessary.

## 5. TECHNICAL DATA

- 5.1 The assessment of the laboratory data reports the following essential characteristics:
- Binder content to BS EN 12697-1 : 2012, in accordance with BS EN 13108-6 : 2016, Section 5.2.3
  - Particle size distribution to BS EN 12697-2 : 2015 + A1 : 2019, in accordance with BS EN 13108-6 : 2016, Section 5.2.2
  - Indentation limits to BS EN 12697-20 : 2012, in accordance with BS EN 13108-6, Section 5.3.2, Table 4 and Table 5
  - Temperature of the mixture, in accordance with BS EN 13108-6, Section 5.4
    - ◇ Minimum temperature 180°C
    - ◇ Maximum temperature 195°C
- 5.2 Installation trials were carried out in 2017 for the following applications:
- Inset patch application
  - Surfacing material in the surround area to ironworks (pre-fabricated manhole cover encased in a concrete base), for slow-moderate speed, low-moderate intensity, very high-load vehicular traffic)
- 5.3 The visual inspection carried out after 2 years showed satisfactory performance in service

## 6. IN SERVICE PERFORMANCE

- 6.1 **Durability – as defined in Specification for the Reinstatement of Openings in Highways (SROH), Fourth Edition, April 2010, Section S2.2.1**
- “...Where the profile of the existing surfaces adjacent to the reinstatement is uniform but the surface of the reinstatement is outside the intervention limits, the Undertaker must carry out remedial work to restore the surface of the reinstatement to match the adjacent surfaces.”*
- 6.2 **Durability— as defined in Specification for the Reinstatement of Openings in Highways (SROH), Fourth Edition, May 2020, Section S2.2.8**
- “At the end of the guarantee period the condition of a reinstatement is not required to be superior in any respect to the condition of the adjacent surfaces.”*
- 6.3 **Macrotexture Retention**
- The initial surface texture >1.2mm volumetric patch method in accordance with BS EN 13036-1
- The minimum wet Skid Resistance > 60 in accordance with BS EN 13036-4

## 7. REQUIREMENTS

- ◇ **Product shall be manufactured only by the Certificate Holder using only the raw materials approved and covered under the current FPC and QMS:**
  - **Reclaimed Asphalt classified to BS EN 13108-8 : 2016**
  - **Aggregate to BS EN 13043 : 2002**
  - **Polymer Modified Bitumen 40/100-65 classified to BS EN 14023 : 2010**
  - **Hydrated Lime with Declaration of Performance (DoP) and CE Certification from the approved supplier**
- ◇ **Product shall be installed only by the Certificate Holder or Certificate Holder’s authorised installer meeting the requirements of Section 4, Paragraph 4.4.**

Available on request of the Overseeing Organisation from the Certificate Holder comprising the verification and on-going validation processes.

### **Bibliography:**

BS EN ISO/IEC 17065 : 2012 Conformity assessment—Requirements for bodies certifying products, processes and services

BS EN ISO/IEC 17067 : 2013 Conformity assessment—Fundamentals of product certification and guidelines for product certification schemes

BS EN ISO 17025 : 2005 General requirements for the competence of testing and calibration laboratories

BS EN ISO 17025 : 2017 General requirements for the competence of testing and calibration laboratories

BS EN ISO/IEC 9001 : 2015 Quality Management System Requirements

Manual of Contract Documents for Highways Works, Volume 1 Specification for Highway Works, amended July 2019

Department for Transport – New Roads and Street Works Act 1991,

[Specification for the Reinstatement of Openings in Highways \(SROH\), Fourth Edition, May 2020](#)

RSTA ADEPT HE Code of Practice for Ironwork Systems Installation and Refurbishment, May 2017

BS 594987 : 2015 + A1 : 2017 Asphalt for roads and other paved areas — Specification for transport, laying, compaction and product-type testing protocols

BS EN 13043 : 2002 Aggregates for bituminous mixtures and surface treatments for roads, airfields and other trafficked areas

BS EN 14023 : 2010 Bitumen and Bituminous Binders. Specification Framework for Polymer Modified Bitumens

BS EN 13108-6 : 2016 Bituminous Mixtures — Materials Specifications — Mastic Asphalt

BS EN 13108-8 : 2016 Bituminous Mixtures — Materials Specifications — Reclaimed Asphalt

PTS SG946R Guidelines and Criteria Document for the Assessment and Certification of Hot and Cold Laid Asphalt Surfacing Material for Potholes Repairs, Ironworks, Utility Reinstatements, Airfield Repairs, Patching, Local Repairs and Other Similar Use including Narrow and Micro Trenches—Proprietary Materials

1. This Certificate: • relates only to the product/system that is named and described on the front page • is issued 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 Certificate has been issued to them • has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective • is copyright of PTS Ltd. • PTS Product Assessment forms part of the Product Acceptance Scheme as described in MCHW SHW Volume 1 Clause 104.16 and shall be submitted by the Contractor/Certificate Holder to the Overseeing Organisation for Approval.
2. Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by PTS Ltd at the date of issue or reissue of this Certificate.
3. This Certificate will remain valid for an unlimited 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 PTS Ltd • continue to be checked as and when deemed appropriate by PTS Ltd under arrangements that it will determine • are reviewed by PTS Ltd as and when it considers appropriate • remain in accordance with the requirements of PTSPAS.
4. PTS Ltd has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.
5. In issuing this Certificate, PTS Ltd 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 Certificate Holder to manufacture, supply, install, maintain or market the product/system • individual 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 Certificate is 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 Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.