HAPAS

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HAPAS Certificate 25/H7403

Product Sheet 1 Issue 1

HIGHWAY SAFETY SYSTEMS ADDITIONAL SURFACING LAYER PRODUCT FOR HIGHWAYS

AMERICAN ROAD PATCH

This Product Sheet⁽¹⁾ is issued by the British Board of Agrément (BBA). The Highways Authorities Product Approval Scheme (HAPAS) is supported by National Highways (NH) (acting on behalf of the Overseeing Organisations of the Department for Transport; Transport Scotland; the Welsh Government; and the Department for Infrastructure, Northern Ireland), the Association of Directors of Environment, Economy, Planning and Transport (ADEPT), the Local Government Technical Advisers Group and industry bodies.

(1) Hereinafter referred to as 'Certificate'.

This Certificate relates to American Road Patch, a self-adhesive geotextile membrane, saturated with bitumen and dressed with aggregate, for use as an additional surfacing layer in the repair of highways, reinstatements and other similar pre-filled defects repaired using an appropriate patch repair material⁽¹⁾ occurring in bituminous surfaces on trafficked and non-trafficked highways on the non-strategic road network, in accordance with the BBA HAPAS *Technical Specification Document*.

(1) Outside the scope of this Certificate.



The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as complying with the requirements of the BBA HAPAS Certification Scheme according to the assessments set out in this Certificate.

On behalf of the British Board of Agrément

Date of issue: 27 May 2025

Hardy Giesler

Chief Executive Officer

 $This \, BBA \, HAPAS \, Certificate \, is \, is sued \, under \, the \, BBA's \, accreditation \, to \, ISO/IEC \, 17065 \, (UKAS \, accredited \, Certification \, Body \, Number \, 0113).$

Clauses marked \dagger are additional information outside the scope of accreditation.

Readers MUST check the validity and latest issue number of this BBA HAPAS Certificate by referring to the BBA website or contacting the BBA directly.

The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément

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1 Description

- 1.1 The Certificate holder specifies the product under assessment, American Road Patch, as a self-adhesive geotextile membrane, saturated with bitumen and dressed with aggregate, for use as an additional surfacing layer in the repair of highways, reinstatements and other similar pre-filled defects repaired using an appropriate patch repair material⁽¹⁾ occurring in bituminous surfaces on trafficked and non-trafficked highways on the non-strategic road network, in accordance with the BBA HAPAS *Technical Specification Document*.
- (1) Outside the scope of this Certificate.

1.2 Use of the system

- 1.2.1 American Road Patch is satisfactory for use as an additional surfacing layer in minor routine or reactive repairs of potholes and other similar defects found in bituminous surfaces. The repair of potholes or other similar defects must be conducted using an appropriate repair material relevant to the site category and road type. The Certificate holder can advise on suitable materials for this purpose, but such advice and products are outside the scope of this Certificate. Potholes are defined for the purpose of this Certificate as irregular-shaped defects with a depth greater than 15 mm. They are not continuous or whole-width defects.
- 1.2.2 The product must only be installed where the adjacent area has surface properties which are equivalent to those of American Road Patch.
- 1.2.3 The product must be used in conjunction with a backfill material suitable for the site category and road type as defined within the *Specification for the Reinstatement of Openings in Highways*, Fourth Edition, 2020. UK Road Patch is then applied on top of the pre-filled defect to further aid the ongoing in-situ performance of the backfill material. The performance of specific backfill materials has not been assessed by the BBA and is outside the scope of this Certificate.
- 1.2.4 The properties listed in section 3 must be compared to those of the existing adjacent surface to ensure the product is compatible.
- 1.2.5 If the properties of the existing adjacent surfacing are unknown, the Department for Transport *Specification for the Reinstatement of Openings in Highways* (SROH), Fourth Edition, Section S2 provides additional guidance on categorising local authority sites.
- 1.2.6 The material has been assessed for use on the non-strategic road network only.

2 Requirements

Requirements for the system are outlined in the BBA HAPAS Certification Scheme and Technical Specifications Documents, and have been established from the following specification documents:

- the Design Manual for Roads and Bridges [DMRB⁽¹⁾]
 - CM 231 Pavement Surface Repairs, March 2020
 - Potholes and Repair Techniques for Local Highways, ADEPT, March 2019
- SROH, Fourth Edition, 2020.
- (1) The DMRB is operated by the Overseeing Organisations: National Highways (NH), Transport Scotland, the Welsh Government and the Department for Infrastructure (Northern Ireland).

3 Summary of Product Assessment

The product was assessed on the basis of the following characteristics in accordance with HAPAS requirements.

3.1 Surfacing performance characteristics

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| Table 1 Characteristics | | | | |
|-------------------------|--|----------------|--------------------------------|--|
| Product assessed | Assessment method | Requirement | Outcome | |
| American Road Patch | Initial texture depth to BS EN 13036-1: 2010 | ≥ 0.9 mm | Pass | |
| | Initial Skid Resistance Value (SRV) to BS EN 13036-4 : 2011 | ≥ 60 | Pass | |
| | Retained texture depth to BS EN 13036-1: 2010 ⁽¹⁾ | ≥ 0.7 mm | Pass | |
| | Retained SRV to BS EN 13036-4 : 2011 ⁽¹⁾ | ≥ 50 | Pass | |
| | Tensile bond strength (to asphalt) to | Declared Value | 23°C − 0.16 N·mm ² | |
| | TRL Report 176 : 1997, Appendix J | | 40°C − 0.06 N·mm ² | |
| | | | -10°C − 0.84 N·mm ² | |
| | In-situ drainability to BS EN 12697-40 : 2015 | Impermeable | Pass | |

⁽¹⁾ The retained values were taken on an in-situ installation visited after 3 months of trafficking, and confirmed that the requirements as laid out in the BBA HAPAS *Technical Specification for Patch Repair Products* can be met.

The assessment showed that the product complies with the HAPAS requirements for these characteristics.

3.2 **Durability**

- 3.2.1 For planned routine maintenance work where best practice installation is followed and where the substrate and adjacent material are generally sound, the product will extend the expected service life of the existing patch repair material.
- 3.2.2 For reactive (immediate/emergency/unplanned) repairs with minimum preparation and installation, the expected durability will be reduced.
- 3.2.3 The product may be susceptible to minor deformation, scuffing and marking, and de-bonding if used when a combination of the following apply:
- in areas of excessive turning, braking or static loads (eg, within the wheel track)
- when the complete depth of the repair is greater than 40 mm or greater than the surface course layer thickness.

4 Summary of Process Assessment

| Manufacturing process and quality control | Complies with HAPAS requirements |
|---|----------------------------------|
| Delivery and site handling | Complies with HAPAS requirements |
| Installation | Complies with HAPAS requirements |

4.1 Manufacture

- 4.1.1 The BBA has undertaken the following tasks for the assessment of product manufacture and has established that the manufacture complies with BBA HAPAS Certification Scheme requirements:
- the BBA has recorded and evaluated the manufacturer's documentation of the methods adopted for quality control procedures and product testing against HAPAS requirements
- the BBA has assessed the quality control operated over batches of incoming materials and formulations against HAPAS Requirements
- the BBA has evaluated the process for management of non-conforming work
- the BBA has audited the production process and verified that it is in accordance with the documented process
- the BBA has checked that equipment has been properly tested and calibrated.
- 4.1.2 The BBA has undertaken to review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

4.2 Delivery and site handling

- † 4.2.1 The Certificate holder states that the product is delivered to site in rolls of 1 m width and 6.4 m length, with a thickness of between 3.2 and 4.8 mm, and must be cut to the required size prior to installation.
- 4.2.2 To achieve the performance described in this Certificate, delivery and site handing must be performed in accordance with the Certificate holder's instructions and this Certificate.

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4.3 Design

- 4.3.1 The product must be used in conjunction with an appropriate backfill material for the defect being repaired (see section 1.2.3).
- 4.3.2 Traffic management must be in accordance with the latest issue of the Department for Transport Traffic Signs Manual, Chapter 8, or as agreed between the overseeing organisation and the installer.

4.4 Installation

- 4.4.1 The Certificate holder's instructions for installation of the product were confirmed as meeting the BBA HAPAS Certification Scheme requirements.
- 4.4.2 To achieve the performance described in this Certificate, the product must be installed in accordance with the Certificate holder's instructions, taking into consideration the requirements of DMRB, CM 231 *Pavement surface repairs*.
- 4.4.3 The backfill material chosen to fill the defective area must be installed in accordance with the manufacturer's installation instructions.
- 4.4.4 Once the defective area has been backfilled, the surrounding area must be cleaned to ensure any loose material, dust or debris, salt, oil, ice or standing water is removed from the surface as this may negatively affect the performance of American Road Patch. Any moisture present may be removed by the use of a propane torch. UK Road Patch should not be directly heated with the propane torch as this may negatively affect the surface characteristics.
- 4.4.5 If a hot-mix asphalt back-fill material is used, then the repair must be allowed to cool to below 104°C before application of American Road Patch.
- 4.4.6 If the substrate temperature is below 75°C, then the pre-filled defect must be warmed to a maximum temperature of 104°C when measured using a calibrated thermometer to aid the bond of American Road Patch.
- 4.4.7 The American Road Patch is then cut to the required size, allowing for a 100 mm extension to the repair on all sides. If American Road Patch is to overlap another installation, then a minimum of 75 mm overlap must be included.
- 4.4.8 The release film must be removed from the back of the American Road Patch and then rolled, hand tamped or compressed onto the prepared pre-filled defect. A vibratory plate must not be used as this will lead to over-compaction or potential crushing of the aggregate and reduce the surface performance properties.
- 4.4.9 Once American Road Patch has been installed, it can be immediately opened to trafficking, as this will further aid the adhesion of the product.
- 4.4.10 To achieve the performance described in this Certificate, installation of the product must be carried out by operatives approved by the Certificate holder.

† 4.5 Maintenance

The Certificate holder advises the installed product is not subject to any routine maintenance requirements but instructs that any damaged areas must be removed and replaced.

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5 Fulfilment of Requirements

- 5.1 The conclusion of this BBA assessment is that UK Road Patch, when used in accordance with the provisions of this Certificate, complies with the BBA HAPAS Certification Scheme requirements.
- 5.2 In order for the product to continue to meet Scheme requirements, it must be installed, used and maintained as per the Certificate holder's instructions and as detailed in the Certificate.

6 Validity of Certificate

Continuing validity of this Certificate is dependent on the following factors:

- continuing compliance with product or process requirements, as described in the HAPAS Scheme document, and the specification documents referred to therein
- ongoing BBA surveillance of factory production control, to verify that the specifications and quality control being operated by the manufacturer are being maintained
- formal triennial Review of the Certificate, and Reissue for required technical or non-technical updates
- compliance with ongoing Certificate obligations by the Certificate holder and manufacturer(s).

† 7 Additional Regulations

Construction (Design and Management) Regulations 2015
Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

CLP Regulations

The Certificate holder has taken the responsibility of classifying and labelling the product under the GB CLP Regulation and the CLP Regulation (EC) No 1272/2008 – Classification, Labelling and Packaging of Substances and Mixtures. Users must refer to the relevant Safety Data Sheet(s).

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8 Bibliography

BS EN 13036-1 : 2010 Road and airfield surface characteristics — Test methods — Measurement of pavement surface macrotexture depth using a volumetric patch technique

BS EN 13036-4 : 2011 Road and airfield surface characteristics — Test methods — Method of measurement of slip/skid resistance of a surface : The pendulum test

Department for Transport Specification for the Reinstatement of Openings in Highways (SROH), Fourth Edition, May 2020

Department for Transport Traffic Signs Manual, Chapter 8 - Roadworks and temporary situations - design (2009)

Design Manual for Roads and Bridges (DMRB), CM 231 Pavement Surface Repairs, Revision 0 (03/20)

Potholes and Repair Techniques for Local Highways, ADEPT, March 2019

TRL Report 176: 1997 – Laboratory tests on high-friction surfaces for highways

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9 Conditions of Certification

9.1 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
- is valid only within the UK
- 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 the BBA
- is subject to English Law.
- 9.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.
- 9.3 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 the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.
- 9.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.
- 9.5 In issuing this Certificate the BBA 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
- 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
- any claims by the manufacturer relating to UKCA marking and CE marking.
- 9.6 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.