HAPAS

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HAPAS Certificate
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Product Sheet 1 Issue 1

WALKER SEALANTS SURFACE TREATMENTS FOR HIGHWAYS

ULTRASCREED

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 Ultrascreed, a hot hand-applied, single-layer surface treatment, for the repair of areas of defective asphalt surfacing (in layers not exceeding 20 mm in depth), including full road widths. The product, when used in accordance with this Certificate, will provide a satisfactory repair to delay the deterioration of a defective bituminous surface course.

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: 11 March 2025

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1 Product Description

1.1 The Certificate holder specifies the product under assessment, Ultrascreed, as a hot hand-applied, single-layer surface treatment, for the repair of areas of defective asphalt surfacing (in layers not exceeding 20 mm in depth), including full road widths. The product, when used in accordance with this Certificate, will provide a satisfactory repair to delay the deterioration of a defective bituminous surface course.

1.2 Ultrascreed comprises a hand-applied polymer modified compound incorporating mineral fillers and granite aggregates to BS EN 13043 : 2002.

2 Requirements

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

- BBA HAPAS Guidelines Document for the Assessment and Certification of Crack Sealing Systems for Highways
- BBA HAPAS Guidelines Document for the Assessment and Certification of High Friction Surfacing for Highways.

3 Summary of Product Assessment

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

3.1 Texture depth

Table 1 Texture depth

Product assessed	Assessment method	Requirement	Result
Ultrascreed	Initial texture depth to BS EN 13036-1 : 2010	Value achieved	1.7
	Texture depth after scuffing without prior conditioning to BS EN 13036-1 : 2010	Value achieved	1.1
	Texture depth after heat aging for 112 days at 70 ±3°C and scuffing to BS EN 13036-1 : 2010	Value achieved	1.3
	Texture depth after freeze/thaw and scuffing to BS EN 13036-1 : 2010	Value achieved	0.8

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

3.2 Skid resistance value

Table 2 Skid resistance value

Product assessed	Assessment method	Requirement	Result
Ultrascreed	Initial Skid Resistance Value (SRV) to TRL Report 176 : 1997, Appendix E	≥60	Pass
	Retained SRV after scuffing to TRL Report 176 : 1997, Appendix E	≥50	Pass
	Retained SRV after heat ageing to TRL Report 176 : 1997, Appendix E	Post-treatment and post trafficking skid resistance value maintained	Pass
	Retained SRV after freeze/thaw to TRL Report 176 : 1997, Appendix E	Post-treatment and post trafficking skid resistance value maintained	Pass
	Retained SRV, spread and thickness after wheel tracking (1)	≥50	Pass

(1) BBA HAPAS Guidelines Document for the Assessment and Certification of Crack Sealing Systems for Highways.

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

3.4 Retained measurements on site will be affected by traffic and site stress levels, therefore the laboratory measurements may not be achieved in all cases.

3.5 The properties listed in section 3.1 and 3.2 should be compared to those of the existing adjacent surface to ensure the system is compatible. If the properties of the existing adjacent surface are unknown, the Specification for the Reinstatement of Openings in Highways (SROH), Section S2, provides additional guidance on categorising Local Authority sites. For the motorway and trunk road network, additional guidance can be found within the relevant parts of the Manual of Contract Documents for Highway Works (MCHW), Volume 1 Specification for Highway Works (SHW), and the Design Manual for Roads and Bridges (DMRB), CD 236 Surface course materials for construction.

3.6 PSV and AAV of aggregates

Table 3 PSV and AAV of aggregates

Product assessed	Assessment method	Requirement	Result
Ultrascreed	PSV of aggregates to BS EN 1097-8 : 2020	≥50	Pass
	AAV of aggregates to BS EN 1097-8 : 2020	≤15	Pass

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

3.7 Tensile strength and elongation

Table 4 Tensile strength and elongation

Product assessed	Assessment method	Requirement	Result
Ultrascreed	Tensile strength and elongation (briquette) to BS 6319-7 : 1985 (control)	≥1 $N \cdot mm^{-2}$	Pass
	Tensile strength and elongation (briquette) to BS 6319-7 : 1985 after heating at maximum temperature for 3 hours	≥1 $N \cdot mm^{-2}$	Pass

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

3.8 Tensile bond strength

Table 5 Tensile bond strength

Product assessed	Assessment method	Requirement	Result
Ultrascreed	Tensile bond strength to an asphalt substrate to TRL Report 176 : 1997, Appendix J	≥0.5 $N \cdot mm^{-2}$	Pass

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

3.9 Durability

3.9.1 Provided that the substrate is structurally sound, and that installation is carried out in accordance with the provisions of this Certificate, the product will contribute to extending the life of the existing surface.

3.9.2 Where there is evidence that the substrate is unstable or cracks have penetrated substantially through the underlying pavement, the expected durability will be reduced.

3.9.3 A system installation performance trial on a worn HRA motorway site was carried out to assess the practicability of the installation. A visual inspection of the site concluded that it was free from significant faults. The initial SRV (inside the wheel track) was measured at 67 and the texture depth at 1.6 mm. The 12 months existing sites were visited and the retained SRV was measured at 81 and the texture depth at 1.3 mm. Results confirmed that that the system can be satisfactorily installed.

3.9.4 A visual inspection carried out by the BBA of existing sites that were at least one year old, marked all sites as moderate to excellent condition with no significant defects.

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 Ultrascreed is delivered to site in 20 kg meltable polythene bags and must be stored under cover in the original packaging in a cool, well-ventilated area and protected from direct sunlight.

4.3 Design

4.3.1 Ultrascreed is suitable for maintenance of bituminous surfaces courses, where the adjacent properties are considered at least equivalent to those of Ultrascreed (see section 3), and where limited surface regulation is required.

4.3.2 The system will contribute to providing a uniform overall (continuous and full width) appearance on existing bituminous surface courses that have been subjected to a high number of reinstatements and patching, and/or are showing signs of early deterioration such as fretting or minor ravelling.

4.3.3 The system has a satisfactory resistance to trafficking, wear and bond characteristics.

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 carried out by installers who have been trained and approved by the Certificate holder, in accordance with the Certificate holder's instructions and the Installation Method Statement. Such an installer is a company which:

- employs operatives who have been trained and approved by the Certificate holder to install the system
- has undertaken to comply with the Certificate holder's application procedure
- is subject to supervision by the Certificate holder, including site inspections.

4.4.3 Traffic management must be in accordance with the Department for Transport Traffic Signs Manual, Chapter 8, or as agreed between the purchaser and installer.

4.4.4 The ambient and road surface temperatures are recorded at the start and, if the weather is variable, during the installation process. Installation must only be carried out when the surface is dry and road temperature is between 5 to 35°C. Where road surface temperature is below 10°C, the surface can be warmed by hot compressed air. The system must not be installed during periods of continuous or heavy rain.

4.4.5 The areas to which the system is to be applied must be clearly defined by the client prior to commencement of work on site.

4.4.6 The area to be treated must be marked out and any defects and the surrounding area must be cleaned using a stiff brush and dry thoroughly using a hot gas/air lance equipment removing all loose material, dirt, dust and foreign matter.

4.4.7 If the defective area requires pre-filling prior to the final screed, the void must be filled with Ultrascreed in layers not exceeding 20 mm. Additional layers may be built up using this method to leave a suitable level for the final screed application.

4.4.8 The road surface must be clean, dry, and free from ice, frost, loose aggregate, oil, grease, road salt and other loose matter likely to impair adhesion of the system to the road surfacing. Surface contamination must be removed by lancing with hot compressed air.

4.4.9 Existing road markings, ironwork, road edges of area to be treated and road studs may be masked. If this cannot be carried out, any spillages must be removed during the installation using specially designed scrapers.

4.4.10 The system is supplied in meltable polyethylene bags, the temperature of the product is raised to 185±10°C with constant agitation, and mixed until fully homogeneous.

4.4.11 Material must not be heated above 195°C as prolonged overheating could lead to degradation of the binder component, which will adversely affect system performance.

4.4.12 The hot mixed material is applied with a screed onto the prepared substrate. The Ultrascreed compound is poured into a screed box with a suitably designed trailing edge.

4.4.13 Screeding of the material must be carried out across the prepared road surface depending on a constant rate and thickness to give an even texture, ensuring the box is topped up and joints remain level, neat and tidy. The application must be carried out transversely or longitudinally when more suitable, depending on the orientation of the prepared road surface.

4.4.14 The finished surface will be regular in shape and screed finished to overlap the adjacent sound material.

4.4.15 A visual inspection must be carried out by the installer to check for any discernible faults. These should be repaired before the site is open to traffic, or as agreed with the purchaser.

4.4.16 Before opening to traffic the system must be allowed to set. During the setting period, no disturbance or trafficking the system is allowed.

4.4.17 The installer conducts a visual check for uniform surface texture, blemishes and any other discernible faults, and carries out any remedial works as necessary.

4.4.18 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

4.5.1 The product is not subject to any routine maintenance requirements, but any damaged areas must be removed and replaced.

5 Fulfilment of Requirements

5.1 The conclusion of this BBA assessment is that Ultrascreed, 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
- acceptable results from long-term exposure monitoring
- acceptable data to confirm durability
- 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 Regulation

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

8 Bibliography

BS EN 1097-8 : 2020 *Tests for mechanical and physical properties of aggregates — Determination of the polished stone value*

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

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

BS 6319-7 : 1985 *Testing of resin and polymer/cement compositions for use in construction — Method for measurement of tensile strength*

Design Manual for Roads and Bridges, CD 236 *Surface course materials for construction (Revision 4.1.0: March 2022)*

BBA HAPAS Guidelines Document for the Assessment and Certification of Crack Sealing Systems for Highways *(October 2010)*

BBA HAPAS Guidelines Document for the Assessment and Certification of High Friction Surfacing for Highways *(March 2017)*

Department for Transport Traffic Signs Manual *(2009)*

TRL Report 176 : 1997 *Laboratory Tests on High-friction Surfaces for Highways*

Specification for the Reinstatement of Openings in Highways, *(SROH), 4th Edition (February 2020)*

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.

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