HAPAS

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HAPAS Certificate
24/H7195
Product Sheet 1 Issue 1

INSTARMAC REPAIR MORTARS

ULTRACRETE M60

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 UltraCrete M60, used as bedding mortars in the installation and reinstatement of ironwork, up to and including Group 4 of BS EN 124-1 : 2015, in footways, footpaths, cycle tracks and Types 2, 3 and 4 carriageways where rapid trafficking is required, in accordance with the Manual of Contract Documents for Highway Works (MCHW), Volume 1, Series 500, Clause 507 Chambers, 24 (i) to (iv).

The BBA has awarded this Certificate to the company named above for the products described herein. These products have 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: 21 February 2025

Hardy Giesler
Chief Executive Officer

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

Clauses marked † 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.

1 Product Description

1.1 The Certificate holder specifies the products under assessment, Ultracrete M60, as bedding mortars in the installation and reinstatement of ironwork, up to and including Group 4 of BS EN 124-1 : 2015, in footways, footpaths, cycle tracks and Types 2, 3 and 4 carriageways where rapid trafficking is required, in accordance with the *Manual of Contract Documents for Highway Works* (MCHW)(1), Volume 1, Series 500, Clause 507 Chambers, 24 (i) to (iv).

(1) The MCHW is operated 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).

1.2 UltraCrete M60 are fast setting, cementitious mortars used to bed and level ironwork.

1.3 UltraCrete M60 are part of the Instarmac Ultracrete Ironwork Installation System for the installation and reinstatement of ironwork, and consists of the following product range:

- Ultracrete Envirobed CD534 (the subject of BBA Certificate 24/H7192)
- Ultracrete Envirobed CD534 Flowable (the subject of BBA Certificate 24/H7193)
- Ultracrete PY4 SG and Ultracrete PY4 WG (the subject of BBA Certificate 24/H7194)
- Ultracrete M60
- Ultracrete M60F (the subject of BBA Certificate 24/H7292)
- Ultracrete QC10 Rapid Strength Concrete (the subject of BBA Certificate 24/H7196)
- Ultracrete QC10F Rapid Strength Concrete (Flowable) (the subject of BBA Certificate 24/H7197)
- Ultracrete Instant Road Repair (the subject of BBA Certificate 01/H060)

†1.4 The Certificate holder recommends Ultracrete Seal and Tack, a spray applied, cold joint sealant, applied to the vertical edges and surfaces at joint interfaces, for use with the products, but this material has not been assessed by the BBA and is outside the scope of this Certificate:

2 Requirements

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

- the *Manual of Contract Documents for Highway Works* (MCHW), Volume 1, Series 500, Clause 507, 24 (i) to (iv)
- the MCHW, Volume 2, Series NG 500, Clause 507.

(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 products were assessed on the basis of the following characteristics in accordance with HAPAS requirements.

3.1 Performance characteristics

Table 1 Performance Characteristics

Product assessed	Assessment method	Requirement	Outcome
UltraCrete M60	Shrinkage to a BBA Method	Non-shrinkable	Pass
	Workability and pot life to a BBA Method	≥ 15 Minutes	Pass
	Compression strength to BS 6319-3 : 1990	> 20 $N \cdot mm^{-2}$ within 2 hours(1)	Pass
	Full-scale load testing with D400 Access cover	No failure within bedding mortar	Pass

(1) This requirement has been identified from HD 27/15. This document has been withdrawn in March 2020 and superseded by CD 226, however this document does not specify a requirement for compression strength, and therefore the previous requirement has been maintained.

The assessment showed that the products comply with the HAPAS requirements for these characteristics.

3.2 Durability

3.2.1 Provided the surrounding pavement remains structurally sound, the products will have an anticipated service life of up to five years.

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.

†4.1.3 The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by NQA, Certificate 6987.

4.2 Delivery and site handling

†4.2.1 The Certificate holder states that the products are delivered to site in the packaging and weight given in Table 2.

Table 2 Packaging and weights

Component	Weight	Packaging type
UltraCrete M60	25 kg	Bags or Tubs

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, including:

- When handling the products on site, the normal health and safety procedures associated with cementitious materials must be observed.
- Health and Safety Data Sheets and the Control of Substances Hazardous to Health Regulations 2002 (COSHH) risk assessments for the works must be available to the purchaser and be maintained on site.

4.3 Installation

4.3.1 The Certificate holder's instructions for installation of the products were confirmed as meeting the BBA HAPAS Certification Scheme requirements.

4.3.2 To achieve the performance described in this Certificate, the products must be installed in accordance with the Certificate Holder's Agreed Installation Method Statement on precast concrete inspection chambers complying with the requirements of BS 5911-4 : 2002 and BS EN 752 : 2017.

4.3.3 The products must be installed between 5°C and 30°C, at a thickness of between 10 and 75 mm.

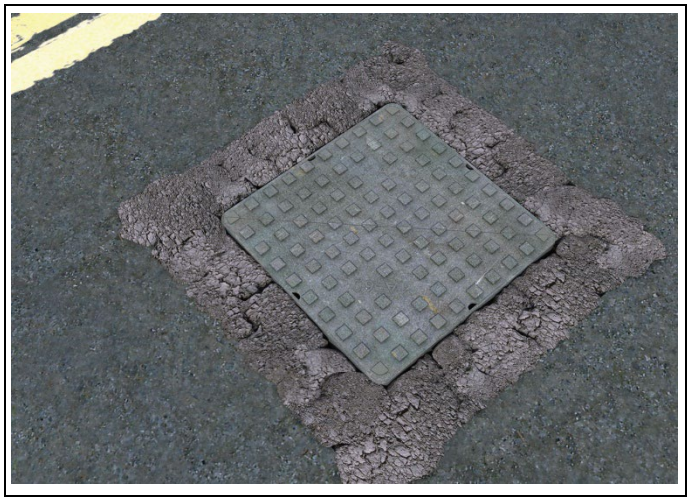
†4.3.4 The Certificate holder's instructions advise the following:

4.3.4.1 Where other materials are used in conjunction with the products (eg to repair / rebuild the supporting structure), such materials must have a strength commensurate with the reinstatement system in accordance with the MCHW, Volume 1, Series 500, Clause 507.

4.3.4.2 The frame and cover must be aligned to ensure safe access to the reinstatement.

4.3.4.3 A perimeter area, indicating the minimum width needed for excavation, is marked out around the existing frame of a failed installation (see Figure 1). This area must be extended to include any defects.

Figure 1 Failed ironwork



4.3.4.4 The supporting structure must be of adequate size and strength to support the frame, cover and expected loading.

4.3.4.5 The marked area is saw cut and excavated to uncover the flange of the existing cover and frame (see Figure 2). The existing cover and frame are removed using a suitable lifting device, taking care to avoid dropping loose materials into the shaft.

Figure 2 Excavating failed ironwork

4.3.4.6 All old bedding mortar is removed and the supporting structure cut back, or loose bricks removed until a sound base is achieved.

4.3.4.7 The newly exposed substrate must be clean and structurally sound prior to commencement of the reinstatement work.

4.3.4.8 The depth needed to install the frame and cover level to the road surface is determined, taking into account the depth of frame and the Certificate holder's recommended maximum and minimum thicknesses.

4.3.4.9 The finishing course of the supporting structure must be adjusted accordingly. For brick structures, levelling must be achieved prior to the installation of the final course.

4.3.4.10 Concrete structures must be repaired using conventional concrete repair techniques and materials. The Certificate holder can advise on suitable materials, but such advice and products are outside the scope of this Certificate.

4.3.4.11 All old bedding material, loose paint, rust and any other debris is removed from the frame/chamber prior to installation.

4.3.4.12 The substrate must be wetted prior to installation of the products (see Figure 3).

Figure 3 Application of bedding mortar to the prepared substrate

4.3.4.13 When packing materials are used to support and level the frame, they must be compatible with the bedding mortar to be used. The Certificate holder can advise on suitable materials, but such advice and products are outside the scope of this Certificate.

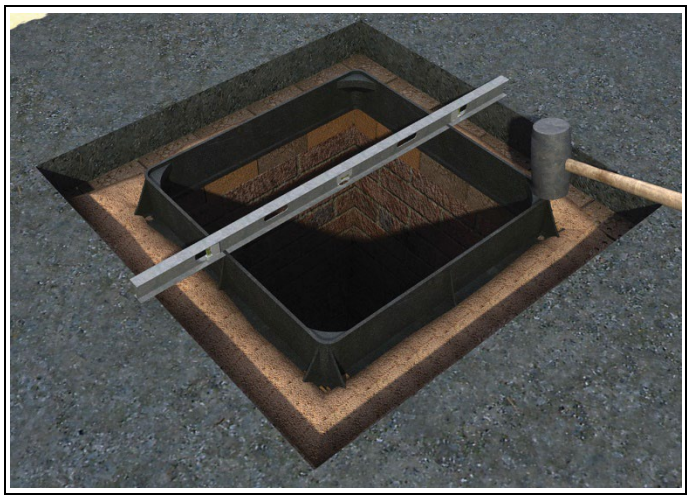
4.3.4.14 The products are mechanically mixed using 25 kg of powder with approximately 3 litres of potable water to obtain a stiff, non-slump mix with a uniform consistency.

4.3.4.15 The mixed product is immediately placed on the supporting structure, allowing a 5 mm excess thickness. It must be used within 5 minutes of mixing.

4.3.4.16 The frame is lowered into position using a suitable lifting device and placed on the bedding mortar, ensuring that it is fully supported and checking that the frame does not overhang the mortar at any point. Care must be taken to eliminate voids in the bedding material under the frame, particularly in the vicinity of the cover seating.

4.3.4.17 The frame is tamped down into place, ensuring the correct level is obtained (see Figure 4). This can be checked by placing a straight edge over the frame and surrounding carriageway.

Figure 4 Tamping and levelling of the frame



4.3.4.18 Any holes within the frame are infilled and the flanges of the frame enveloped by a minimum thickness of 10 mm of the product.

4.3.4.19 Exposed surfaces of the bedding material around the frame are flat finished, ensuring any voids or loose material are removed, and the inside surface pointed to a smooth finish.

4.3.5 To achieve the performance described in this Certificate, installation of the products must be carried out by specialist operatives familiar with this type of product.

4.4 Maintenance

† The Certificate holder advises the products are not subject to any routine maintenance requirements, but any damage must be repaired as soon as is practicable.

5 Fulfilment of Requirements

5.1 The conclusion of this BBA assessment is that UltraCrete M60, when used in accordance with the provisions of this Certificate, comply with the BBA HAPAS Certification Scheme requirements.

5.2 In order for the products to continue to meet Scheme requirements, they must be installed, used and maintained as per the Certificate holder's instructions and as detailed in this 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 products 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).

8 Bibliography

BS 5911-4 : 2002 + A2: 2010 *Concrete pipes and ancillary concrete products – Specification for unreinforced and reinforced concrete inspection chambers (complementary to BS EN 1917 : 2002)*

BS EN 124-1 : 2015 *Gully tops and manhole tops for vehicular and pedestrian areas – Definitions, classification, general principles of design, performance requirements and test methods*

BS 6319-3 : 1990 *Testing of resin compositions for use in construction – Methods for measurement of modulus of elasticity in flexure and flexural strength*
BS 6319-7 : 1985 *Testing of resin and polymer/cement compositions for use in construction – Method for measurement of tensile strength*

BS EN 752 : 2017 *Drain and sewer systems outside buildings – Sewer system management*

BS EN ISO 9001 : 2015 *Quality management systems – Requirements*

Manual of Contract Documents for Highway Works (MCHW), Volume 1 Specification for Highway Works, Series 500 Drainage and Service ducts (03/20)
Manual of Contract Documents for Highway Works (MCHW), Volume 2 Notes for Guidance on the Specification for Highway Works, Series NG 500 Drainage and Service ducts (02/20)

DMRB, CD 534 Chamber tops and gully tops for road drainage and services (05/22)

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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