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Roads and Bridges Agrément Certificate

No 01/H060

Second issue*

Designated by Government
to issue
European Technical
Approvals

ULTRACRETE INSTANT ROAD REPAIR

This Certificate is issued under the Highway Authorities' Product Approval Scheme (HAPAS) by the BBA in conjunction with the Highways Agency (acting on behalf of the overseeing organisations of the Department for Transport; the Scottish Executive; the Welsh Assembly Government; the Department for Regional Development, Northern Ireland), the County Surveyors' Society, the Local Government Technical Advisers' Group, and industry bodies. HAPAS Agrément Certificates are normally each subject to a review every five years.

Product



• THIS CERTIFICATE RELATES TO ULTRACRETE INSTANT ROAD REPAIR, PERMANENT COLD-LAY SURFACING MATERIALS (PCSMs).

• The product is available in both 6 mm and 10 mm surface course grades for the permanent first-time reinstatement of openings in footways, footpaths, cycle tracks and Type 2, 3 and 4 roads.

HAPAS Requirements

1 Requirements

1.1 The Highways Technical Advisory Committee (HiTAC) has agreed with the British Board of Agrément the aspects of performance to be used by the BBA in assessing the compliance of Permanent Cold-lay Surfacing Materials with the Guideline for the Approval and Certification of Permanent Cold-lay Surfacing Materials (PCSMs), January 2001.

1.2 In the opinion of the BBA, the product, when manufactured and laid in accordance with the provisions of this Certificate, will meet the relevant requirements (see section 7.1).

Regulations

2 New Roads and Street Works Act 1991

Under Sections 71 (England and Wales) and 130 (Scotland) of the New Roads and Street Works Act 1991, the use of permanent cold-lay surfacing materials must comply with revised Appendix A10 of the *Specification for the Reinstatement of Openings in Highways*, June 1992. The Guideline replaces revised Appendix A10, and has been approved by Ministers under Sections 71 and 130 of the Act for use in England and Wales, and Scotland respectively.

3 Construction (Design and Management) Regulations 1994 (as amended)

Construction (Design and Management) Regulations (Northern Ireland) 1995 (as amended)

Information in this Certificate may assist the client, planning supervisor, designer and contractors to address their obligations under these Regulations.

See sections: *6 Delivery and site handling (6.2) and 8 Precautions during installation (8.1 and 8.2) of this Certificate.*

Technical Specification

4 Description

4.1 Ultracrete Instant Road Repair consists of fully-graded basalt aggregate, coated with Instarmac Z Binder consisting of bitumen, polymers and chemical additives. It is available in both 6 mm and 10 mm surface course grades.

4.2 The 6 mm grade is available in both black and dark red colours, and the 10 mm in black only.

4.3 Ancillary item for use with the product is:

- Ultracrete Cold Joint Sealer — a spray-applied cold joint sealant for application to vertical edges.

5 Manufacturer and quality control

5.1 The product is manufactured in a two-stage continuous process, by applying Instarmac Z Binder to fully-graded basalt aggregate, pre-coated with a penetration grade bitumen to BS EN 12591 : 2000.

5.2 The production process is controlled in accordance with a BBA Quality Plan which includes requirements for:

- Instarmac Z Binder
- aggregate selection
- method of production and process control
- inspection and testing of finished product.

6 Delivery and site handling

6.1 The product is supplied in 25 kg polythene bags or tubs, bearing the manufacturer's name, aggregate size, batch number, installation instructions, and the BBA identification mark incorporating the number of this Certificate.

6.2 The product is classified as 'Irritant' under the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP3), and packaging carries the appropriate precautions and hazard warnings.

6.3 When stored in frost-free conditions in accordance with the Certificate holder's instructions, the unopened product supplied in bags or tubs has a shelf-life of up to one month and six months, respectively.

Design Data

7 General

7.1 Both 6 mm and 10 mm grades of Ultracrete Instant Road Repair are satisfactory for use in accordance with Section 2.1 of General requirements of the Guideline, as a:

- Permanent Cold-lay Surfacing Material (PCSM), at any position in all reinstatements within footways, footpaths and cycle tracks
- Permanent Cold-lay Wearing⁽¹⁾ Course (PCWC) in all reinstatements within Type 2, 3 and 4 roads.

(1) Wearing course is also known as surface course.

7.2 The colour retention of the product has not been assessed and is outside the scope of this Certificate.

8 Precautions during installation

8.1 Instarmac Z Binder which is used in the product is irritating to eyes, respiratory system and skin. Industrial type gloves, overalls, protective eye and footwear should be worn to minimise contact. In case of contact with the eyes, irrigate immediately with water and seek medical attention.

8.2 Health and Safety Data Sheets and the Control of Substances Hazardous to Health Regulations 2002 (COSHH) risk assessments for the works should be deposited with the purchaser and be maintained on site.

9 Durability

The results of tests and an assessment of the product's approval trials indicate that both the 6 mm and 10 mm grades are equivalent in durability to 50 pen⁽¹⁾ hot-laid bitumen macadam.

(1) 50 pen bitumen equates to 40/60 grade bitumen in accordance with BS EN 12591 : 2000.

Installation

10 General

Installation of Ultracrete Instant Road Repair must be carried out in accordance with the Certificate holder's installation instructions and Appendix A8, Compaction Requirements of the *Specification for the Reinstatement of Openings in Highways*.

11 Preparation

Debris is brushed out and the back-fill compacted to the specified depth below the existing surface course.

12 Application (for a surface course of 60 mm)

12.1 Ultracrete Spray Cold Joint Sealer is applied to all vertical edges of the reinstatement, and the product is applied to a depth of approximately 45 mm and compacted to 30 mm in accordance with Appendix A8 of the Specification.

12.2 Vertical edges are sprayed again and the product is applied with a surcharge. The material is compacted level with the existing surface course.

Technical Investigations

The following is a summary of the technical investigations carried out on Ultracrete Instant Road Repair.

13 Approval trials

13.1 Two-year utility company approval trials using both 6 mm and 10 mm grades in footways and Type 3 roads were conducted. Visual assessments of the surface conditions were made and found to be satisfactory.

13.2 An evaluation was made of laboratory test data, from the approval trials (see Table 1).

Table 1 Laboratory performance tests and requirements on Permanent Cold-lay Surfacing Materials

Test	Specification	Requirement
Void content %	Carriageway and footway	10 max, 2 min
	Footway, footpath and cycleway	12 max, 2 min
Elastic stiffness at 20°C (MPa)	10 mm	>3800 ⁽¹⁾
	6 mm	>2800 ⁽¹⁾
Resistance to permanent deformation at 30°C (microstrain)	3600 load applications	<20000

(1) 50 pen bitumen hot-laid equivalence.

14 Investigations

14.1 The manufacturing process for the product material was assessed, including the methods adopted for quality control, and details were obtained of the quality and composition of materials used.

14.2 An assessment was made of data resulting in the issue of the following Certificates issued by the Highway Authorities and Utilities Committee (HAUC):

- Certificate No 98/00150/0 awarded to 10 mm Instant Road Repair Material
- Certificate No 98/00149/0 awarded to 6 mm Instant Road Repair Material
- Certificate No 98/00148/0 awarded to Z Binder System.

Additional Information

The management systems of Instarmac Group plc have been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2000, National Quality Assurance Ltd, Certificate No 6987/1.

Bibliography

Guideline for the Approval and Certification of Permanent Cold-lay Surfacing Materials (PCSMs)

BS EN 12591 : 2000 *Bitumen and bituminous binders. Specifications for paving grade bitumens*

BS EN ISO 9001 : 2000 *Quality management systems — Requirements*

Conditions of Certification

15 Conditions

15.1 This Certificate:

- (a) relates only to the product that is named, described, installed, used and maintained as set out in this Certificate;
- (b) is granted only to the company, firm or person identified on the front cover — no other company, firm or person may hold or claim any entitlement to this Certificate;
- (c) is valid only within the UK;
- (d) has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective;
- (e) is copyright of the BBA;
- (f) is subject to English law.

15.2 References in this Certificate to any Act of Parliament, Regulation made thereunder, Directive or Regulation of the European Union, Statutory Instrument, Code of Practice, British Standard, manufacturers' instructions or similar publication, are references to such publication in the form in which it was current at the date of this Certificate.

15.3 This Certificate will remain valid for an unlimited period provided that the product and the manufacture and/or fabrication including all related and relevant processes thereof:

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;
- (b) continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine;

(c) are reviewed by the BBA as and when it considers appropriate; and

(d) remain in accordance with the requirements of the Highway Authorities' Product Approval Scheme.

15.4 In granting this Certificate, the BBA is not responsible for:

- (a) the presence or absence of any patent, intellectual property or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the actual works in which the product is installed, used and maintained, including the nature, design, methods and workmanship of such works.

15.5 Any recommendations relating to the use or installation of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date of this Certificate or in the future; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any present or future statutory, common law or other duty of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the installation and use of this product.



In the opinion of the British Board of Agrément, Ultracrete Instant Road Repair is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 01/H060 is accordingly awarded to Instarmac Group plc.

On behalf of the British Board of Agrément

A handwritten signature in black ink, appearing to read 'P. C. Newson', is written over a light grey background.

Chief Executive

Date of Second issue: 12th April 2005

**Original Certificate issued on 22nd March 2002. This amended version includes references to Type 2 roads, changes to shelf-life of product and new Conditions of Certification.*