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Agrément Certificate
No 07/H128

BITUCRETE PERMANENT COLD-LAY SURFACING MATERIALS

PRODUCT SHEET 1 — BITUCRETE 6 MM (DENSE GRADED) AND 10 MM (CLOSE GRADED) — SURFACE COURSE

This Certificate is issued under the Highway Authorities' Product Approval Scheme (HAPAS) by the British Board of Agrément (BBA) in conjunction with the Highways Agency (HA) (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 SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to Bitucrete 6 mm (Dense Graded) and 10 mm (Close Graded) — Surface Course, for use in reinstatement work within footways, footpaths and cycle tracks.

THIS CERTIFICATE INCLUDES:

- factors relating to compliance with HAPAS requirements
- factors relating to compliance with UK Building Regulations where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal five-yearly review



KEY FACTORS ASSESSED

Performance — the products meet the requirements of the *Guideline for the Approval and Certification of Permanent Cold-Lay Surfacing Materials (PCSMs)* for the reinstatement of openings in footways, footpaths and cycle tracks, (see section 4).

Durability — the results of tests and an assessment of the product's performance in service indicate that it can be used in the first-time permanent reinstatement of openings in footways, footpaths and cycle tracks to provide a durable surface course (see section 5).

The BBA has awarded this Agrément Certificate for Bitucrete 6 mm (Dense Graded) and 10 mm (Close Graded) — Surface Course to Colas Limited as fit for their intended use provided they are installed, used and maintained as set out in this Agrément Certificate.

On behalf of the British Board of Agrément

Date of First issue: 26 September 2007

Greg Cooper: Chief Executive

The BBA is a UKAS accredited certification body — Number 113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

HAPAS Requirements

Requirements

The Highways Technical Advisory Committee (HiTAC) has agreed with the BBA the aspects of performance to be used in assessing the compliance of permanent cold-lay surfacing materials with the *Guideline for the Approval and Certification of Permanent Cold-Lay Surface Materials (PCSMs)*.

In the opinion of the BBA, Bitucrete 6 mm (Dense Graded) and 10 mm (Close Graded) — Surface Course when manufactured and laid in accordance with the provisions of this Certificate, will meet the relevant performance requirements.

Regulations

Construction (Design and Management) Regulations 2007

Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See section: 2 Delivery and site handling (2.1 to 2.4).

General

This Certificate relates to Bitucrete 6 mm (Dense Graded) and 10 mm (Close Graded) — Surface Course for use as permanent cold-lay surfacing materials (PCSMs) in reinstatements within footways, footpaths and cycle tracks.

Technical Specification

1 Description

1.1 Bitucrete 6 mm (Dense Graded) and 10 mm (Close Graded) — Surface Course are bituminous cold-lay surfacing materials consisting of graded basalt aggregate and limestone filler coated with Colas Colade TPF binder.

1.2 Colade TPF binder comprises bitumen modified with a proprietary flux including oils, solvents and anti-stripping agents.

1.3 The production process is controlled in accordance with a Quality Plan agreed by the BBA. Quality control checks are carried out on the incoming materials, during production and on the finished product.

1.4 Ancillary products used with Bitucrete include:

- Colas Leotak tack coat – a K1-40 bitumen emulsion for priming surfaces prior to the application of Bitucrete
- Colas Bitukold edge sealant – a cold, hand-applied thixotropic bitumen compound for sealing the vertical edges of reinstatements.

2 Delivery and site handling

2.1 The products are supplied either in bulk or 25 kg bags stamped with the name of the product, nominal aggregate size and coding indicating the date of production. Bulk materials must be sheeted and kept in protective bays and should be used within two weeks. When stored correctly, the bagged products will have a storage life of at least six months.

2.2 Colas Leotak tack coat is supplied in 25 kg screw-cap plastic pouring containers or 200 kg drums for use with spray equipment.

2.3 Colas Bitukold edge sealant is supplied in 15 kg plastic buckets.

2.4 The products should be stored in cool dry conditions protected from frost and high temperatures.

2.5 The products are not classified under The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP3) and should be handled in accordance with the manufacturer's Material Safety Data Sheets. Material Safety Data Sheets and COSHH risk assessments for the works should be deposited with the purchaser and be maintained on site.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Bitucrete 6 mm (Dense Graded) and 10 mm (Close Graded) — Surface Course.

Design Considerations

3 Use

Bitucrete 6 mm (Dense Graded) and 10 mm (Close Graded) — Surface Course are satisfactory for use as permanent cold-lay surfacing materials, at any position, in reinstatements within footways, footpaths and cycle tracks.

4 Performance

The results of two-year performance trials and tests to determine the air voids content of the 10 mm product were satisfactory and complied with the requirements of the *Guideline for the Approval and Certification of Permanent Cold-Lay Surfacing Materials (PCSMs)* (see sections 9 and 10 of this Certificate).

5 Durability

The products have been used since 1996. The results of two-year performance trials and a survey of users indicate that the products can be used in permanent reinstatements in footways, footpaths and cycle tracks to provide a durable surface course.

Installation

6 General

Bitucrete 6 mm (Dense Graded) and 10 mm (Close Graded) — Surface Course must be installed in accordance with the manufacturer's instructions, this Certificate and the relevant requirements of the *New Roads and Street Works Act 1991 : Specification for the reinstatement of openings in highways : a code of practice* (June 2002).

7 Preparation of the road surface

7.1 Surfaces to be repaired must be clean and free from loose material, oil, grease, standing water or other contaminants.

7.2 The base surface of the opening should be treated with Colas Leotak tack coat.

7.3 The cut vertical edges of the opening should be treated with Colas Bitukold edge sealant.

8 Application

8.1 To aid workability during winter months, wherever possible, the bagged product should be stored above 10°C for 24 hours prior to use.

8.2 The product is placed in the opening allowing a 25% surcharge of material to allow for compaction.

8.3 The material should be compacted to the surrounding level using a suitable compactor/roller in accordance with the Certificate holder's instructions and Appendix A8 *Compaction Requirements* given in *New Roads and Street Works Act (1991) : Specification for the reinstatement of openings in highways*.

8.4 If necessary, where under-filling has occurred, additional material can be added and compacted until level with the adjacent surface.

Technical Investigations

9 Approval trials

A two-year utility company approval trial in footways using the 10 mm product with basalt aggregate was conducted. The undertaker and road authority confirm that the product had performed satisfactorily.

10 Tests

10.1 Laboratory performance tests were carried out on the system in accordance with the requirements of the *Guideline for the Approval and Certification of Permanent Cold-Lay Surfacing Materials (PCSMs)*. The results were satisfactory.

10.2 The tests and requirements are given in Table 1.

Table 1 Laboratory performance tests and requirements

Test	Requirements (%)	Method
Air voids content	2–12	Guideline document ⁽¹⁾ (section 6.2)

(1) *Guideline for the Approval and Certification of Permanent Cold-Lay Surfacing Materials (PCSMs)*.

11 Investigations

11.1 An installation trial was carried out to assess the practicability of the installation in accordance with the manufacturer's instructions. The results of the trial were satisfactory.

11.2 A user/specifier survey was carried out to assess the products' performance in service. The responses received confirmed satisfactory performance.

11.3 The manufacturing process was examined, including the methods adopted for quality control, and details were obtained of the quality and composition of materials used.

Bibliography

Guideline for the Approval and Certification of Permanent Cold-Lay Surfacing Materials (PCSMs) January 2001

New Roads and Street Works Act (1991) : Specification for the Reinstatement of Openings in Highways : a code of practice (June 2002)

Conditions of Certification

12 Conditions

12.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is granted only to the company, firm or person named on the front page — no other company, firm or person may hold or claim any entitlement to this Certificate
- 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.

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

12.3 This Certificate will remain valid for an unlimited period provided that the product/system and the manufacture and/or fabrication including all related and relevant 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
- remain in accordance with the requirements of Highways Authorities' Product Approval Scheme.

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

- 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 the nature, design, methods and workmanship of or related to the installation
- the actual works in which the product/system is installed, used and maintained, including the nature, design, methods and workmanship of such works.

12.5 Any information relating to the manufacture, supply, installation, use and maintenance 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 and maintained. It does 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; 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. 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 manufacture, supply, installation, use and maintenance of this product/system.