

## Colas Limited

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HAPAS Certificate  
**07/H128**  
Product Sheet 1

## BITUCRETE PERMANENT COLD-LAY SURFACING MATERIALS

### BITUCRETE 6 MM (DENSE GRADED)

This HAPAS Certificate is issued by the British Board of Agrément (BBA), supported by the Highways Agency (HA) (acting on behalf of the overseeing organisations of the Department for Transport; Transport Scotland; the Welsh Assembly Government and the Department for Regional Development, Northern Ireland), the Association of Directors of Environment, Economy, Planning and Transport (ADEPT), 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), for use as a surface course in reinstatement work within footways, footpaths and cycle tracks.

#### HAPAS CERTIFICATION INCLUDES:

- factors relating to compliance with HAPAS requirements
- factors relating to compliance with 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 product meets 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 6).

**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 8).

The BBA has awarded this HAPAS Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Second issue: 25 April 2012

Originally certificated on 26 September 2007



Simon Wroe  
Head of Approvals — Materials



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](http://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.*

# Requirements

In the opinion of the BBA, Bitucrete 6 mm (Dense Graded) when assessed in accordance with the *Guideline for the Approval and Certification of Permanent Cold-Lay Surface Materials (PCSMs)* and used in accordance with the provisions of this Certificate, is suitable for use as a permanent cold-lay surface course in footways, footpaths and cycle tracks as defined in the *New Roads and Street Works Act 1991 : Specification for the Reinstatement for Openings in Highways*.

## 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: 3 *Delivery and site handling* (3.1 to 3.5) of this Certificate.

## Technical Specification

### 1 Description

1.1 Bitucrete 6 mm (Dense Graded) is a bituminous cold-lay surfacing material, consisting of graded basalt, gritstone and granite aggregate and limestone filler to BS EN 13043 : 2002, coated with Colas Colade TPF binder.

1.2 Colade TPF binder comprises a paving grade bitumen to BS EN 12591 : 2009 modified with a proprietary flux including oils, solvents and anti-stripping agents.

1.3 Ancillary products used with Bitucrete include:

- Leotak — a cold-applied primer for sealing the base prior to installation
- Bitukold Standard, RS and RS Spray — a cold-applied primer for sealing vertical edges prior to installation.

### 2 Manufacture

2.1 Bitucrete is manufactured using conventional asphalt production methods.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis as part of a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

2.3 The management system of Colas Limited has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 by British Standards Institute (BSI) (Certificate Q06036).

### 3 Delivery and site handling

3.1 The product is 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.

3.2 Leotak is supplied in 25 kg plastic containers or 200 kg drums or in bulk.

3.3 Bitukold is supplied in 15 kg plastic containers. Bitukold RS Spray is supplied in 600 ml aerosol cans.

3.4 The product should be stored in cool dry conditions protected from frost and high temperatures.

3.5 The product is not classified under *The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP4)/Classification, Labelling and Packaging of Substances and Mixtures (CLP Regulation) 2009* 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).

## Design Considerations

### 4 Use

Bitucrete 6 mm (Dense Graded) is satisfactory for use as a PCSM, at any position, in reinstatements within footways, footpaths and cycle tracks in accordance with Appendix A2.4 of the *New Roads and Streets Works Act 1991 : Specification for the Reinstatement of Openings in Highways* (SROH), Third Edition, April 2010.

### 5 Practicability of installation

The product is designed to be installed by a competent installer experienced with this type of product.

### 6 Performance

The result of a two-year performance trial and tests to determine the air voids content of the product were satisfactory and complied with the requirements of the *Guideline for the Approval and Certification of Permanent Cold-Lay Surfacing Materials (PCSMs)* (see section 12 of this Certificate).

### 7 Maintenance

The product is not subject to any routine maintenance requirements but any damage must be repaired.

### 8 Durability

The product has been used since 1996. The result of a two-year performance trial and a survey of users indicate that the product can be used as a PCSM in any position in all reinstatements in footways, footpaths and cycle tracks to provide a durable surface course in accordance with the SROH.

## Installation

### 9 General

Bitucrete 6 mm (Dense Graded) must be installed in accordance with the manufacturer's instructions, this Certificate and the relevant requirements of the SROH.

### 10 Preparation of the substrate

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

10.2 The base surface of the opening must be treated with Leotak.

10.3 The cut vertical edges of the opening must be treated with Bitukold Standard, RS or RS Spray.

### 11 Application

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

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

11.3 The material is then compacted to the surrounding level using a suitable compactor/roller in accordance with the Certificate holder's instructions and Section S10 and Appendix A8 *Compaction Requirements* of the SROH.

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

## Technical Investigations

### 12 Tests

12.1 Laboratory performance tests were carried out on the product in accordance with the requirements of the *Guideline for the Approval and Certification of Permanent Cold-Lay Surfacing Materials (PCSMs)*. The results were satisfactory (see Table 1).

*Table 1 Laboratory performance tests and requirements*

Test	Requirements (%)	Method
Air voids content <sup>(1)</sup> footway, footpath and cycle track	2–13	Guideline document <sup>(2)</sup> , (Section 6.2)

(1) Measurements recorded on cores removed and tested at six months.

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

### Approval trials

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

## 13 Investigations

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

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

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

## Bibliography

BS EN 12591 : 2009 *Bitumen and bituminous binders — Specifications for paving grade bitumens*

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

BS EN ISO 9001 : 2008 *Quality management systems — Requirements*

*Guideline for the Approval and Certification of Permanent Cold-lay Surfacing Materials (PCSMs)*, April 2010

## 14 Conditions

### 14.1 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.

14.2 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.

14.3 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.

14.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

14.5 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
- individual 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 CE marking.

14.6 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.

