



Tarmac Ltd

Millfields Road
Ettingshall
Wolverhampton
West Midlands WV4 6JP

Tel: 01902 353522 Fax: 01902 353928
e-mail: info@tarmac.co.uk
website: www.tarmac.co.uk

| | |
|-----|---|
| 123 | Y |
|-----|---|

H A P A S
Roads and Bridges
Agrément Certificate
No 04/H096

Designated by Government
to issue
European Technical
Approvals

ROADMASTER

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 Development Department; the Welsh Assembly Government; the Department for Regional Development, Northern Ireland), the CSS (formerly 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 ROADMASTER, PERMANENT COLD-LAY SURFACING MATERIALS (PCSMs).

- The product is available in 0/10 mm surface course grades, for the permanent first-time reinstatement of openings in footways, footpaths, cycle-tracks, and Types 2, 3 and 4 roads.

These Front Sheets must be read in conjunction with the accompanying Detail Sheets, which provide information specific to the system.

HAPAS Requirements — Detail Sheet 1

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)*.

1.2 In the opinion of the BBA, Roadmaster, when manufactured and laid in accordance with the provisions of this Certificate, will meet the relevant requirements (see section 4 of Detail Sheet 2 and Detail Sheet 3).

Regulations

2 New Roads and Street Works Act 1991 (June 2002)

Under Sections 71 (England and Wales) and 130 (Scotland) of the New Roads and Street Works Act 1991 (June 2002), the use of permanent cold-lay surfacing materials must comply with revised Appendix A10 of the *Specification for the Reinstatement of Openings in Highways*. 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:

4 *Precautions during installation* (4.1 and 4.2) of these Front Sheets and 3 *Delivery and site handling* (3.2) of the accompanying Detail Sheets.

Design Data

4 Precautions during installation

4.1 Skin contact should be avoided by wearing gloves and overalls. If skin contact occurs, wash thoroughly as a hygiene precaution with a proprietary hand cleaner. In event of eye contact, irrigate immediately with water for at least 10 minutes and seek medical advice if pain persists.

4.2 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.

Installation

5 General

Installation 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*.

6 Preparation

6.1 All debris should be brushed clear of the reinstatement area and tools and compaction equipment cleaned prior to laying the product.

6.2 Prior to installation, vertical surfaces of the excavation should be sprayed with EdgeMaster sealant ensuring complete coverage prior to laying.

7 Placement

7.1 Sufficient quantity of the product should be placed into the excavation to give a 40 mm compacted layer thickness.

7.2 The surface should be levelled with a rake, or similar. To reduce the risk of surcharged material overspilling onto the existing surface, the edges should be chamfered away from the vertical walls of the trench.

Bibliography

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

Specification for the Reinstatement of Openings in Highways, June 2002

Conditions of Certification

8 Conditions

8.1 This Certificate:

- (a) relates only to the product that is 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.

8.2 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.

8.3 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.

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

- (a) the presence or absence of any patent 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 nature or standard of individual installations of the product or any maintenance thereto, including methods and workmanship.

8.5 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, Roadmaster is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 04/H096 is accordingly awarded to Tarmac Ltd.

On behalf of the British Board of Agrément

Date of issue: 29th June 2004

Chief Executive

Electronic Copy

British Board of Agrément

P O Box No 195, Bucknalls Lane
Garston, Watford, Herts WD25 9BA
Fax: 01923 665301

©2004

e-mail: mail@bba.star.co.uk
website: www.bbacerts.co.uk



For technical or additional information,
contact the Certificate holder (see
front page).
For information about the Agrément
Certificate, including validity and
scope, tel: Hotline 01923 665400,
or check the BBA website.



Tarmac Ltd

ROADMASTER 0/10 mm (SMA) PCSM**Product**

• THIS DETAIL SHEET RELATES TO ROADMASTER 0/10 mm (SMA) PCSM, PERMANENT COLD-LAY SURFACING MATERIAL.

• The product is satisfactory for use as a Permanent Cold-lay Surfacing Material (PCSM) at any position in all reinstatements within footways, footpaths, cycle-tracks, and as a permanent cold-lay surface course in all reinstatements within Types 2, 3 and 4 roads, in accordance with Section 2.1 of the General Requirements of the Guideline.

This Detail Sheet must be read in conjunction with the Front Sheets, which give additional information on the HAPAS Requirements, Regulations and Conditions of Certification.

Technical Specification**1 Description**

1.1 Roadmaster 0/10 mm (SMA) is a permanent cold-lay surfacing material, consisting of either a graded basalt or gritstone aggregate, coated with Emcol binder.

1.2 The Emcol binder consists of bitumen, white spirit and chemical additives.

1.3 Ancillary products used with the product include:

- EdgeMaster sealant.

2 Manufacture and quality control

The product is manufactured, controlled and delivered in a continuous process using conventional asphalt plants in accordance with a BBA Quality Plan which includes requirements for:

- binders
- aggregate selection
- method of production and process control
- inspection and testing of finished product
- plant suitability and approval
- suitability of delivery vehicles and release agents.

3 Delivery and site handling

3.1 The product is supplied in bulk, or in smaller containers, with a conveyance note detailing the product code, vehicle (where applicable) and job number.

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

Design Data

4 General

4.1 Roadmaster O/10 (SMA) PCSM is satisfactory, in accordance with Section 2.1 of General requirements of the Guideline for use as:

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

4.2 In accordance with Table A11.2 of the *Specification for the Reinstatement of Openings in Highways* Roadmaster O/10 mm (SMA) PCSM with a binder equivalence of 125 pen is a permitted grade of surface course for use as a hand-lay SMA material in Road Types 0 to 4. Appendix A11 is not considered under the PCSM Guideline and therefore any claims made by the Certificate holder in accordance with Table A11.2 are outside the scope of this assessment.

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

Technical Investigations

The following is a summary of the technical investigations carried out on Roadmaster O/10 mm (SMA) PCSM.

5 Approval trials

5.1 A two-year utility company approval trial using the product with gritstone aggregate in Types 3 and 4 roads was conducted. Visual assessments of the surface conditions were made and found to be satisfactory.

5.2 An evaluation was made of laboratory test data, from the approval trials (see Table 1), using the product with gritstone aggregate and with basalt aggregate.

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 | 1900 ⁽¹⁾ |
| Resistance to permanent deformation at 30°C (microstrain) | 3600 load applications | <20000 |

(1) 125 pen bitumen hot-laid equivalence.

6 Investigations

The manufacturing process for Roadmaster material was assessed including the methods adopted for quality control. 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)

Specification for the Reinstatement of Openings in Highways, June 2002



On behalf of the British Board of Agrément

Date of issue: 29th June 2004

A handwritten signature in black ink, appearing to read 'P. C. Hewson'.

Chief Executive



Tarmac Ltd

ROADMASTER 0/10 mm (TS) PCSM**Product**

• THIS DETAIL SHEET RELATES TO ROADMASTER 0/10 mm (TS) PCSM, PERMANENT COLD-LAY SURFACING MATERIAL.

• The product is satisfactory for use as a Permanent Cold-lay Surfacing Material (PCSM) at any position in all reinstatements within footways, footpaths, cycle-tracks, and as a permanent cold-lay surface course in all reinstatements within Types 2, 3 and 4 roads, in accordance with Section 2.1 of the General Requirements of the Guideline.

This Detail Sheet must be read in conjunction with the Front Sheets, which give additional information on the HAPAS Requirements, Regulations and Conditions of Certification.

Technical Specification**1 Description**

1.1 Roadmaster 0/10 mm (TS) PCSM is a permanent cold-lay surfacing material, consisting of graded steel slag or basalt aggregate, coated with Nyset T binder.

1.2 The binder consists of bitumen, water and emulsifiers.

1.3 Ancillary products used with the product include:

- EdgeMaster sealant.

2 Manufacture and quality control

2.1 The product is manufactured in a continuous process by applying the binder to closely-graded aggregates.

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

- binders
- aggregate selection
- method of production and process control
- inspection and testing of finished product
- plant suitability and approval
- suitability of delivery vehicles and release agents.

Electronic Copy

3 Delivery and site handling

3.1 The product is supplied in bulk, or in smaller containers, with a conveyance note detailing the product code, vehicle (where applicable) and job number.

3.2 The product is not classified under the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP3). Standard material safety data sheets for bitumen emulsions apply.

Design Data

4 General

4.1 Roadmaster 0/10 (TS) PCSM is satisfactory, in accordance with Section 2.1 of General requirements of the Guideline for use as:

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

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

Technical Investigations

The following is a summary of the technical investigations carried out on Roadmaster 0/10 mm (TS) PCSM.

5 Approval trials

5.1 A two-year utility company approval trial using the product with steel slag aggregate in Types 3 and 4 roads was conducted. Visual assessments of

the surface conditions were made and found to be satisfactory.

5.2 An evaluation was made of laboratory test data, from the approval trials (see Table 1), using the product with steel slag aggregate and with basalt aggregate.

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 | 1400 ⁽¹⁾ |
| Resistance to permanent deformation at 30°C (microstrain) | 3600 load applications | <20000 |

(1) 190 pen bitumen hot-laid equivalence.

6 Investigations

The manufacturing process for Roadmaster material was assessed including the methods adopted for quality control. 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)

Specification for the Reinstatement of Openings in Highways, June 2002



On behalf of the British Board of Agrément

Date of issue: 29th June 2004

A handwritten signature in black ink, appearing to read 'P. C. Newson'.

Chief Executive