



HIGHWAY AUTHORITIES & UTILITIES COMMITTEE

**Advice Note No. 2008/03**

**Guidance Note**  
**on the**  
**European Asphalt Standards**

<b>Version:</b>	<i>V1 01 November 2008.</i>
<b>Control Document No.:</b>	<i>15.</i>
<b>Document Owner:</b>	<i>SROH Working group.</i>
<b>Date of Document:</b>	<i>01 November 2008.</i>

## **GUIDANCE NOTE ON THE EUROPEAN ASPHALT STANDARDS**

On the 1<sup>st</sup> of January 2008 the UK implemented the EN 13108 series of standards for asphalt. The term asphalt in this case refers to mixtures of bituminous binder and aggregate. It is a requirement for all EU states to implement these standards and withdraw all conflicting national standards.

For the UK this means that the standard for hot rolled asphalt, BS594 and the standard for asphalt concrete (formerly coated macadam), BS4987 will disappear. The standard for testing these products, BS598, will also be replaced by European Standards. The Published Document PD 6691 gives guidance on the use and application of BS EN 13108 and refers to BS EN 13108 Parts 1 to 8 and Parts 20 to 21. It also refers to parts of BS EN 12697, Bituminous mixtures - Test methods for hot mix asphalt.

There is also reference to BS 594987, which supersedes BS 594-2 and BS 4987-2.

The specifications covering the asphalt mixes will be quite different in approach and detail to the British Standards that they have replaced. However, in most cases the mix compositions themselves are unlikely to change significantly. In short, the message is that the way mixes are called up in specifications will change a lot but the materials that they refer to will change very little.

The Specification for the Reinstatement of Openings in Highways is changing to incorporate the European Standards. The following table shows the asphalt materials currently specified together with their new designations in accordance with BS EN 13108 and PD 6691.

<b>Current reference in Specification for the Reinstatement of Openings in Highways</b>	<b>PD 6691 Reference</b>
6mm Dense Surface Course (DSC) macadam	<b>AC 6 dense surf</b>
10mm Close Graded Surface Course (CGSC) macadam	<b>AC 10 close surf</b>
15/10 Hot Rolled Asphalt (HRA) surface course (SC)	<b>HRA 15/10 F surf</b>
30/14 Hot Rolled Asphalt (HRA) Type F surface course (SC)*	<b>HRA 30/14 F surf</b> ( <i>where a design mix is required this will be suffixed by "des"</i> )
30/14 Hot Rolled Asphalt (HRA) Type C surface course (SC)*	<b>HRA 30/14 C surf</b> ( <i>where a design mix is required this will be suffixed by "des"</i> )
6mm Stone Mastic Asphalt (SMA) surface course (SC)	<b>SMA 6 surf</b>
10mm Stone Mastic Asphalt (SMA) surface course (SC)	<b>SMA 10 surf</b>
14mm Stone Mastic Asphalt (SMA) surface course (SC)	<b>SMA 14 surf</b>
10mm Porous Asphalt	<i>No reference</i>

20mm Porous Asphalt	<i>No reference</i>
50/20 HRA Binder Course (BC)	<b>HRA 50/20 bin</b>
14mm Stone Mastic Asphalt (SMA) binder course (BC)	<b>SMA 14 bin</b>
20mm Stone Mastic Asphalt (SMA) binder course (BC)	<b>SMA 20 bin</b>
20 mm Dense binder course macadam (DBC)	<b>AC 20 dense bin</b>

*Note:*

*\* The current Specification for the Reinstatement of Openings in Highways refers to the Marshall Stability test from BS 598 Part 107 for Hot Rolled Asphalt surface course design mixes. However, in the process of Harmonisation of test methods and material specifications, Marshall Stability was not retained.*

*The method selected for declaration of resistance to deformation is the Wheeltracking test, as described in BS EN 12697 Part 22. Due the use of a range of wheeltracking apparatus and range of test conditions it will be necessary to derive a comparison between the old and new methods and measured results.*

*Work continues to be carried out on comparative testing of HRA mixtures using the old and new wheeltracking methods with Marshall Stability to complete and expand the guidance found in BSI Published Document PD 6691.*

*Therefore for the rest of 2008 by specific arrangement with their supplier, an Undertaker may continue to call up HRA Marshall Stability as stated in the current Specification for the Reinstatement of Openings in Highways and as measured by BS598 Part 107: 2004. This can be declared in the "Other Information" reported on CE Mark certificates.*

As part of changing the way in which mixes are described the new standards refer to the grade of bitumen used in these mixes differently to that in the current Specification for the Reinstatement of Openings in Highways. The following table shows the way in which bitumen grade should now be referenced.

<b>Bitumen grade in Specification for the Reinstatement of Openings in Highways</b>	<b>Bitumen Grade in accordance with BS EN 13108</b>
50 pen	40/60
125 pen	100/150
190 pen	160/220

For asphalt concrete (macadam) and SMA mixes the PSV of the aggregate used (refer to Table S2.7 in the Specification for the Reinstatement of Openings in Highways) will be added as a suffix to the designation.

Examples of how this all goes together on an order for the material or on the delivery ticket are given below.

Old description :

**0/10 Close Graded Surface Course 125pen BS4987 Cl. 7.4 PSV65**

New description:

**AC 10 close surf 100/150 PSV65 EN13108-1**

Old description:

**30% 0/14 HRA Surface Course Design 50pen BS594:P1 C3/2**

New description:

**HRA 30/14F surf 40/60 des EN13108-4**

Further guidance can be obtained from individual asphalt suppliers and the Quarry Products Association (QPA) website [www.qpa.org](http://www.qpa.org) and [www.qpa.org/downloads/asphbulletin02.pdf](http://www.qpa.org/downloads/asphbulletin02.pdf)

**END.**