

sealed and stored at between 0°C to 5°C.

The remaining samples shall then be subjected to the Modified Aging RTFOT.

The temperature is reduced/set to (135 °C ± 2 °C) and the Modified Ageing RTFOT carried out:

The air supply shall be set at 4000 ± 200ml/min.

Start the timer.

The samples shall be rotated in the air supply and two bottles removed if required for testing after three periods: 4hrs ± 10mins; 8hrs ± 10mins; and 22hrs ± 10mins.

Note: It has been found to be advantageous to place the bottles on their sides. This allows the binder to drain to one side of the bottle, which is more easily removed with the scraper.

The bottles and screws shall be scraped to transfer the binder to the appropriate test equipment or, if required to be used later, placed on a silicone sheet, or in a heated penetration pot (maximum 170°C), and sealed and stored at between 0°C to 5°C.

‘Aged Binder’ is deemed to be the sample from the 8 hr period.

The combined test may be run continuously without interruption from the beginning, except for the reduction in temperature after 45mins from 163 °C to 135 °C and at that time removal of bottles for test after RTFOT if required.

During transfer ‘Aged’ samples shall not be subjected to temperatures greater than ambient and the delay before testing shall not exceed 120 hours.

Re-heating for testing shall be in accordance with BS 2000-72 except that the ‘Aged Binder’ shall not be heated above 140 °C unless absolutely necessary for the test. The thermal history of the sample shall be recorded.

## 924 High Friction Surfaces

**1** (05/01) High friction surfacing systems shall have current British Board of Agrément HAPAS Roads and Bridges Certificates.

**2** A high friction surfacing system with a current British Board of Agrément HAPAS Roads and Bridges Certificate shall only be installed by a Contractor approved by the BBA and the Certificate Holder as an Approved Installer for that system.

**3** The high friction surfacing system BBA/HAPAS Type Classification required for each location shall be as specified in Appendix 7/1.

## Aggregate

**4** (11/03) Aggregate used in high friction surfacing systems shall have a minimum declared PSV category specified in Appendix 7/1 in accordance with BS EN 13043, clause 4.2.3. The resistance to abrasion of coarse aggregate shall have a maximum AAV specified in Appendix 7/1 in accordance with BS EN 13043, clause 4.2.4. The Contractor shall provide, before work commences, test certificates, issued by an appropriate organisation accredited in accordance with sub-Clauses 105.3 and 105.4 for those tests, not more than six months previously, showing conformity with the requirements.

## Installation and Quality Control Procedures

**5** The installation and quality control procedures shall be in accordance with the British Board of Agrément Roads and Bridges Certificate for each system and the current method statement agreed by the BBA. The results of all quality control checks carried out on site by the Contractor and quality assurance information compiled in accordance with the requirements of the Certificate, including results from BBA surveillance visits, shall be made available to the Overseeing Organisation on request.

## System Coverage

**6** For each location where high friction surfacing is applied, the total quantities of each system component used, the measured area of the surface treated and the calculated coverage rate in kg/m<sup>2</sup> shall be reported to the Overseeing Organisation within three days of completion at that location. For systems in which aggregate is broadcast over a film of binder applied to the surface, the calculated coverage rate shall be that of the binder film and shall not include the mass of the aggregate.

## Guarantee

**7** The Contractor shall guarantee the high friction surfacing materials and workmanship for a period of two years from the date of opening the surfacing to traffic. This guarantee shall exclude defects arising from damage caused by settlement, subsidence or failure of the carriageway on which the surfacing has been applied, but shall cover failure to meet the minimum requirements set out in Table 4 of the BBA/HAPAS ‘Guidelines Document for the Assessment and Certification of High Friction Surfaces for Highways’.