B6 – Surface Dressing

Surface dressing is a cost-effective road maintenance technique that is used on many of the roads that make up the rural road network.

The object of a surface dressing is to create a stable mosaic of aggregate chippings that is securely attached to the road surface by a thin layer of bitumen. The result is a new road surface that provides a seal against water ingress, slows down the deterioration of the road pavement and restores skid resistance.

Full details are given in:
- BS Guidance: PD 6689, Surface dressing – Guidance on the use of BS EN 12271 Surface dressing. Requirements
- Standard: BS EN 12271, Surface dressing. Requirements

Details of aggregates used in surface dressing can be found in the Topic page:
- Crushed rock aggregates.

Designing a surface dressing

In the UK, guidance about the design of a surface dressing system to suit a particular road is published as:
- Road Note 39, Design guide for road surface dressing (Fifth edition)

Road Note 39 is published by TRL. Copies can be ordered on: www.trl.co.uk

The Road Note 39 design procedure considers traffic levels, the time of year and the condition of the existing surface. It allows the aggregate (chipping) size, bitumen type and the rates of spread for both binder and chippings to be selected for a particular road.

Road Note 39 has been revised to fit with the guidance in PD 6689.

Specification for Highway Works (SHW)

The SHW uses two approaches to specify road surface dressing – recipe and performance.

In the recipe approach (currently specified in SHW Clause 918), the customer is responsible for the design of the road surface dressing. This approach is often used for lightly trafficked roads. Bitumen emulsion is usually chosen as the binder.

The performance approach (currently specified in SHW Clause 922), allows the contractor to take full responsibility for the design, application and the end-performance of the surface dressing.

The contractor also has to give a guarantee. Contractors often choose to use a polymer modified bitumen emulsion as the binder, to manage some of the risks of failure.
Quality management

The SHW requires surface dressing works to be carried out in accordance with:

- Quality Management in Highway Works, Sector Scheme 13A
- The supply and application of surface dressings to road surfaces.

The sector scheme details how a quality management system (QMS) complying with BS EN 9001 can be developed and maintained by a surface dressing contractor.

The sector scheme also includes specific requirements about the management of road traffic and the training and competence of the contractor’s employees.

Sector scheme documents are published by United Kingdom Accreditation Service (UKAS). Copies can be downloaded from: www.ukas.com. Click on the UKAS Publications (M4) list under Information Centre. Then scroll down to the list of Sector Schemes in the section about publications related to certification body accreditation.

Sector Scheme 13A is supported by the trade association for the industry — Road Surface Treatment Association (RSTA): www.rsta-uk.org

The RSTA website contains background information about surface dressing.

RSTA also run training courses for contractors and specifiers.