

Design considerations

Installation & classification

Works should be carried out in accordance with BS 8218:1998. The types and grades of mastic asphalt shall be specified according to the asphalt cement incorporated, according to [Table 2](#) below, taken from BS EN 13108-6.

Table 2

Recommended grades and thicknesses of mastic asphalt for paving applications

Grade	Application	Thickness range	Nominal size coarse aggregate	Coarse agg. content, % by mass of total mix
S	Footways & platforms	20-30mm	3 to 10mm	25 ± 5
S	Roof top car parks	25-35mm	6 or 10mm	30 ± 5
H	Heavily stressed areas	40mm	10mm	45 ± 10

Note: Some indentations should be expected from long-standing point loads and deformation may result from situations of very high stress.

Delivery to site

Mastic asphalt is delivered ready for use in bulk transporters thereby extending factory quality control to site. Coarse aggregate additions are accurately batched to suit the nominated paving specification.

Block material for site remelt is available for detail work and small horizontal areas but care must be taken to ensure correct coarse aggregate addition to the paving asphalt.

Bay jointing

Splayed steel gauges must be used to ensure correct thickness of mastic asphalt paving according to the selected specification and to provide an increased bonding edge between adjacent bays of mastic asphalt paving. Normal bay jointing techniques of warming and cleaning the edge of the previously laid area must be carried out to ensure fusion between the bays.

Rainwater outlets & drainage channels

All rainwater outlets and drainage channels must be designed specifically for use with a mastic asphalt system and be capable of accepting all anticipated wheel loadings.

Margin infill to abutments

The mastic asphalt paving should terminate approximately 100mm from abutments and the margin infilled with Mastic Asphalt Waterproofing. An angle fillet is then formed at the base of the skirting to complete the detail.

Surface finish

The mastic asphalt paving layer should be well rubbed with clean, sharp sand during final floating of the hot asphalt. In addition, a dimpled surface may be achieved by the use of a crimping roller.

Pre-coated chippings must be rolled into the surface where the anticipated gross vehicle weight exceeds 7.5 tonnes, to improve resistance to indentation, and in this case mastic asphalt paving would not be sand rubbed. However an uneven scatter of chippings must be accepted making this finish less attractive than the alternatives.

For normal car park usage mastic asphalt does not require protection against minor oil, petrol or grease contamination but prolonged contact may cause localised softening of the binder.