

- f) Details of any fixtures or fittings, particularly where these are fixed into the base and penetrate the asphalt
- g) The use of any wheeled conveyances, e.g. fork-lift trucks, trolleys, their loading, rates of travel, type and width of tyre
- h) The weights of standing loads, their bearing area and any point loading
- i) The anticipated ambient temperature within the building
- j) Maximum and minimum temperatures, and any other conditions likely to affect the performance of the flooring either during laying or in service
- k) Any exposure of the mastic asphalt to acids, oils, greases or other substances and their concentration and temperature
- l) Details of mastic asphalt flooring surface required, e.g. slip resistance or need for ease of cleaning
- m) Details of floor finishes to be applied to a mastic asphalt underlay and the adhesive to be used
- n) Any other relevant information

The effect of some of these factors are interrelated e.g. loads and temperatures. For specific conditions, advice should be sought from the mastic asphalt manufacturer.

A guide to the selection of the appropriate grade of flooring and recommended thicknesses is given in Table 2.

Design of the base

GENERAL

Surfaces to which mastic asphalt is to be applied should be installed or prepared so as to have a true and even surface substantially free from irregularities such as abrupt changes in levels, hollows, ridges, dips, concrete, mortar or plaster droppings. The building design should therefore, enable the mastic asphalt to be applied to a uniform thickness. Any irregularities in the horizontal substrate will be reflected in the final surface with the accompanying inconsistencies of thickness.

CONCRETE BASES

Concrete bases to receive mastic asphalt flooring should be designed and constructed following the recommendations in BS 8204: Part 1:1987. The surface should be provided with a float finish and a surface regularity of SR2. Any falls required should be formed in the base.

Any damp-proof membrane and/or thermal insulation requirements should be placed below the concrete base slab.

If an SRI finish to the mastic asphalt floor is required, an SRI finish to the concrete base will be required (see Table 1 following).

Adequate end and side restraint should be provided to pre-cast concrete beams and similar units in order to reduce structural movement to a minimum.

SCREEDS

Cement, sand and fine concrete screeds should be designed and laid following the recommendations in BS 8204: Part 1:1987. The soundness of the screed should be at least category B when tested by the method given in Appendix B of BS 8204: Part 1:1987.

The surface should be provided with a float finish and a surface regularity of

SR2 (see Table 1). Any falls required should be formed in the base supporting the screed.

If an SRI finish to the mastic asphalt floor is required, an SRI finish to the screed will be required.

TIMBER FLOORS

Timber floors free from deflection may also provide a suitable base.

FLOORING

Table 1

Classification of surface regularity of direct finished base slab or screed

Class	Maximum permissible departure from a 3m straightedge laid in contact with the floor
SR1	3mm
SR2	5mm
SR3	10mm

(Extract from BS 8204: Part 1: 1987 Table 2)

Mastic asphalt flooring

GENERAL

All grades of mastic asphalt for flooring are available coloured red or black. A complete range of coloured surface finishes is available using special compatible paints.

The total thickness of the mastic asphalt flooring should be appropriate to the traffic conditions.

Usually the mastic asphalt should be laid in one coat, but multi-coat work should be used where a waterproofing membrane is specified.

Multi-coat work should be used for regulating courses.

GRADE I. SPECIAL HARD FLOORING

Grade I flooring should be laid in one coat within the range of 15mm to 20mm thick. It can be used in hospital wards, schools, shop floors to take moveable racks, offices and domestic floors. Grade I flooring can also be used as an underlay for other floor finishes.

flooring