

# *Special conditions*

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## **Boiler houses, sumps & fuel storage areas**

Mastic asphalt tanking will be seriously damaged by contact with oils. In tanked basements where fuel oil is stored or spillage of oils may occur, provision should be made for an oil resisting lining which will resist saturation of the concrete loadings by oil leaks and subsequent damage to the tanking.

## **Storage tank linings for aggressive liquids**

Mastic asphalt linings to tanks used to store liquids in excess of 30°C may be damaged by a softening effect on the bitumen binder. In such cases provision must be made for a protective inner lining, such as impervious brickwork.

Acid resisting grades of mastic asphalt are available and the manufacturer should be consulted at the design stage in order to ensure product suitability.

## **Tank room floors (see Flooring Technical Guide for appropriate specification)**

Where water storage is located in a tank room at or near roof level the flooring is essentially a waterproof lining serving a similar function to that of mastic asphalt roofing. The amount of usage may be no more than that on an average roof and will involve occasional light maintenance traffic. For this reason a standard roofing grade specification is appropriate unless special traffic or environmental conditions have to be considered when the mastic asphalt manufacturer should be consulted.



Tanking

## **Ventilate boiler houses**

Failure of concrete slabs, with consequent failure of the mastic asphalt tanking due to differential settlement caused by drying out of the subsoil by heat from industrial boilers, can occur unless the floor is adequately ventilated by air spaces immediately below the boiler or by other effective means. T

The construction should be such that at no time is the mastic asphalt subjected to temperatures in excess of 30° C.

## **Hot water pipes**

Where service pipes carrying hot liquids pass through the mastic asphalt tanking, special detailing and treatment may be required in order to provide both insulation and continuity of the tanking.

## **Manholes**

If manholes are located in the basement area, the designer should ensure that the manhole structure is fully contained in a mastic asphalt membrane.

The requirements for drains discharging into and draining the manhole are identical to those for other service pipes penetrating the tanking. Provision must be made for protection of the tanking from discharge of aggressive liquids into the manhole (see Tanking detail 9).

## **Discharge of hot liquids**

When a sump or manhole is not in a tanked area and is lined with mastic asphalt, the frequent discharge of hot liquids combined with appreciable fluctuations in level of the liquids in the tank, may cause slumping of the lining.

Provision must be made to provide permanent structural support for the mastic asphalt in the form of an inner brickwork lining.