

Introduction

Mastic asphalt has been used in below-ground tanking situations for decades. When applied correctly, in a 3-coat specification, the ability of mastic asphalt to resist the ingress of water, even under pressure, is outstanding.

This Technical Guide gives recommendations for use of mastic asphalt in tanking applied both internally and externally. Mastic asphalt for tanking shall conform to type T1097 in BS6925, or BS EN 12970.

Design considerations

General

It is essential that a clear distinction should be drawn at the initial design stage between tanking and tank lining to liquid containing structures, as these two waterproofing systems differ in their fundamental purpose and impose their own design constraints which cannot be ignored without risk of failure and possible contravention of British Standard Code of Practice recommendations.

BS 8120:2009 - Code of practice for protection of below ground structures against water from the ground - gives recommendations and provides guidance on methods of dealing with and preventing the entry of water from surrounding ground into a structure below ground level. It covers the use of:

- a). Waterproofing barrier materials applied to the structure
- b). Structurally integral watertight construction; and
- c). Drained cavity construction.

BS 8120:2009 also covers the evaluation of groundwater conditions, risk assessment and options for drainage outside the structure, and applies to structures which extend below ground level and those on sloping sites.

BS 8120:2009 does not give recommendations concerning the use of embedded heating in structures, floors and walls or for the special requirements in connection with the design and construction of cold stores.

NB: Structures are generally characterized as “deep” if they have more than one storey below ground level, or “shallow” if they have only a single storey below ground. This standard is applicable to both. In practice, it is advisable to assume that the head of water is developed from ground level, to the full depth of the excavation to allow for seasonal fluctuation in the water table.

