

BS8102:2009

What's it all about?



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BS8102:2009 is the British standard for water-proofing below-ground structures. This 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. Designers are encouraged to follow a process chart, to ensure that the correct waterproofing system will be selected. Some of the recommendations are highlighted below;

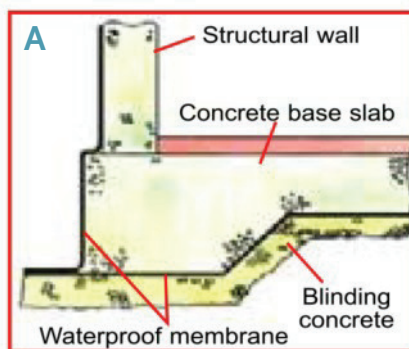
- To help mitigate risk, specify a combination of various types of compatible protection sourced from the same manufacturer
- Where a waterproofing barrier is required for a structure supported on piled foundations, special consideration should be given to the detailing so that structural continuity is not compromised
- Strategies for dealing with groundwater, soil gases and contaminants should be considered from the earliest stages of the planning and design processes
- Products that are both water and gas-proof are more cost-effective
- Where waterproofing admixtures are used, these should be in conjunction with other waterproofing components supplied by the same manufacturer, e.g. waterstops, membranes and sealants
- Fully bonded systems allow potential defects to be located and made good more easily
- Each project structure should be designed to its particular Grade



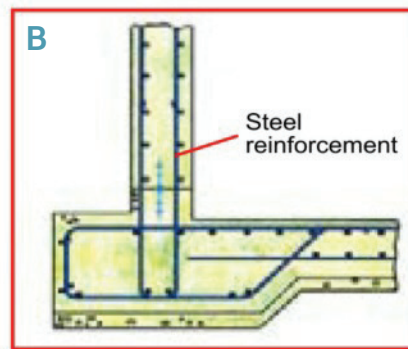
Type C drain protection

Three types of protection

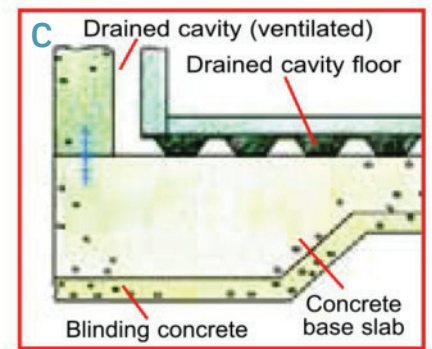
One, or a combination, of the following types of waterproofing protection should be selected:



Type A - (barrier) protection
Protection against water ingress which is dependent on a separate barrier system applied to the structure.



Type B - (structural integral) protection
Protection against water ingress which is provided by the structure.



Type C - (drained) protection
Protection against water ingress into usable spaces which is provided by the incorporation of an appropriate internal water management system.

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Choosing the right waterproofing system

	EXAMPLE OF STRUCTURE	PERFORMANCE LEVEL
GRADE 1	Car parking; Plant rooms (excluding electrical equipment); Workshops.	Some seepage and damp areas tolerable, dependent on the intended use. Local drainage might be necessary to deal with seepage.
GRADE 2	Plant rooms and Workshops requiring a drier environment (than grade 1); Storage areas.	No water penetration acceptable. Damp areas tolerable; ventilation might be required.
GRADE 3	Ventilated residential and commercial areas, including offices restaurants etc; Leisure centres.	No water penetration acceptable. Ventilation, dehumidification or air conditioning necessary, appropriate to the intended use.

NHBC warranty standard

We are familiar with the requirement of the NHBC Chapter 5.4 Waterproofing of basements and other below ground structures. This recently introduced standard has been issued to reduce failures within the industry, it covers the technical scope and design standards required. **Waterproofing design shall be undertaken by suitably qualified persons and be appropriate for the specific performance required** The waterproofing design specialist should be appointed early in the design phase to co-ordinate with other designers, including the engineer, to ensure satisfactory integration of the waterproofing system onto the building. Designers who have successfully completed the Certified Surveyor in Structural Waterproofing (CSSW) qualification available from the Property Care Association (PCA) are normally be acceptable to NHBC.

Premier guarantee standard

The basement design should be completed by a suitably qualified Waterproofing Design Specialist. The Waterproofing Specialist must take responsibility for the design liability of the waterproofing and have appropriate professional indemnity cover which covers their business activities. They must also have an understanding of hydrology and soil mechanics and hold a relevant professional qualification (i.e. Certified Surveyor in Structural Waterproofing (CSSW) or similar).

Property Care Association (PCA)

As members of the Property Care Association we specialise in the provision of highly specialised waterproofing systems that must be properly designed and installed when creating dry basements in new buildings or upgrading existing spaces that are below ground.

The PCA have also created a Register of Waterproofing Design Specialists - a central register of qualified members who have been assessed and are deemed competent to work as part of a project design team for those planning the construction of underground structures. Our surveyors are on the design register.

<http://www.property-care.org/professionals/waterproofing/wds-register/>