



## EFFECTIVE WATERPROOFING

Basements, underground car parks, lift pits, green rooftops and many other structures require effective waterproofing.

Permatite concrete, available exclusively from CEMEX UK, is designed to meet the requirements of waterproofing as defined in BS8102 (all grades). The use of specifically designed admixtures utilised in Permatite change the composition of the concrete to maximise water resistance and provide structurally integral waterproofing.

CEMEX and Fosroc, two of the leading exponents of moisture barrier construction technology, have combined their expertise and experience to provide the best solution in every waterproofing application.

This includes Type A (use of a waterproofing membrane), Type B (structural use of concrete) and Type C (drained cavity) construction projects.



### FEATURES

CEMEX Permatite provide:

- Reduced water and water vapour permeability
- Reduced porosity
- Reduced drying shrinkage
- Enhanced Chloride diffusion resistance

### BENEFITS

- Keeps water out, or in, as required
- Reduced risk of reinforcement corrosion
- Enhanced long term performance including increased durability

### APPLICATIONS

- Basements
- Underground car parks
- Plant rooms
- Archive storage areas
- Liquid storage tanks
- Green rooftops
- Reservoirs
- Water tanks
- Dams
- Sewage treatment works
- Tunnels

## CONSTRUCTION INFORMATION

Permatite is a type B integral waterproofing system, manufactured by CEMEX, utilising Fosroc's state of the art waterproofing technology. The product is manufactured in closely controlled, quality assured ready-mixed plants throughout the UK and is readily available from all of CEMEX's 200 plants. The product is delivered in traditional ready-mixed concrete delivery vehicles and requires no special handling when it arrives on sites. It is generally supplied at high

consistence levels to facilitate placing and is available in a range of strength grades and cement types to suit most applications. Designing and constructing a concrete structure to be watertight requires good crack width control, waterstops in joints and a waterproof concrete. Permatite provides the waterproof concrete by careful selection of raw materials and optimisation of mix designs to facilitate concrete placement. Fosroc will supply all the

ancillary products required to complete the construction of a watertight structure such as tie bolt holes, penetrations and construction joints.

To fully ensure a waterproof structure it's essential to follow good concrete practice and it's important to ensure that the concrete is fully compacted and cured. The formation of watertight joints is critical to success and Fosroc's design team is available to give advice on the most appropriate technology for all types of structure.

DESIGN OPTIONS			
GRADE	TYPICAL STRUCTURE	PERFORMANCE REQUIREMENTS	FOSROC SOLUTIONS
1	<ul style="list-style-type: none"> <li>■ Basic utility Plant rooms (excluding electrical equipment)</li> <li>■ Workshops</li> <li>■ Car parking - Underground</li> </ul>	Some seepage and damp areas tolerable dependant upon intended use i.e. for piling and embedded retaining walls refer to appropriate industry standard	CEMEX Permatite waterproof concrete Supercast PVC waterstops - Rearguard & Hydrofoil Supercast Hydrophilic waterstops - SW range Supercast Synkoflex
2	<ul style="list-style-type: none"> <li>■ Basic utility Storage areas</li> <li>■ Plant rooms &amp; workshops requiring a drier environment than Grade 1</li> </ul>	Damp areas tolerable and some ventilation may be required. No water penetration is acceptable	CEMEX Permatite waterproof concrete Supercast PVC waterstops - Rearguard & Hydrofoil Supercast Hydrophilic waterstops - SW range Supercast Synkoflex Proofex Engage or Proofex Hydromat - at deep basement level as a combined system with concrete type B
3	<ul style="list-style-type: none"> <li>■ Ventilated residential and commercial areas - Offices and restaurants etc Leisure centres</li> </ul>	Ventilation, dehumidification or air conditioning is necessary and appropriate to the intended use. No water or vapour penetration is acceptable*	

\* Degree of vapour protection is dependent on concrete thickness.

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GREEN ROOFTOPS



BASEMENTS



RESERVOIRS AND DAMS



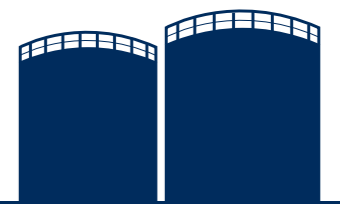
UNDERGROUND CAR PARKS



SWIMMING POOLS



PLANT ROOMS



LIQUID STORAGE TANKS