

Podium Deck Waterproofing -

Waterproofing a concrete or similar deck over a non-critical area such as a car park, podium decks are elevated platform decks generally used as infill between buildings and or other structures. The requirement to water proof is to protect the parent substrate allowing for usage of the deck. Roof water proofing is not included as this requires a number of additional requirements (see Usage).

Substrate

Podium decks are generally made of concrete, concrete plank block and beam.

Choice of waterproofing:

There are many different types of materials that can be used to water proof the deck and the choice will depend on the project requirements and will include:

- Seamless resins; epoxy, polyurethanes, polyuria's, MMA, some of which can be fast curing.
- Sheet membranes, bitumen based both hot and cold applied PVC and EPDM based sheets.
- Cement based crystallization slurries.

Choice will depend on service life, durability, installation requirements or limitations, new or refurbishment, final use, application type, hand, spray, rolled, etc.

Usage

Podium decks are external platforms between and/or attached to building structures and can be utilised for car parks, leisure spaces, recreational spaces, patio terraces and gardens. A podium deck provides a number of options for usage for the building owner.

Installation

The installation requirement will be dependable on the material choice and specific manufacturers' advice should be following and adhered to but detailed below are a number of key criteria which should be considered.

Substrate Prep

The substrate should be well prepared to provide a contamination

free surface from imperfections which may compromise the water proofing membrane. This preparation is usually carried out by mechanical means and will include the removal of surface laitance. Surface imperfections should be repaired or ground down to provide a flat surface that will not allow the ponding of water. Consideration should be given to creating falls on the slab to ensure that water is directed to outlets.

Adequate drainage outlets should be allowed for on the podium to drain surface water off the deck. (See Cracks)

Details

Whatever system is used, consideration should be given to the correct detail and a number of these standard details include:

Upstands
Terminations
Joints - construction/movement
Pipe entry
Level change

Cracks

Static cracks should be repaired, with live cracks opened and sealed using suitable means.

Final - Build up

Once the water proofing has been applied to the deck the final topping has to be applied to protect the water proofing and to provide a finished surface suitable for the usage of the deck.

The build-up will generally consist of a sand/cement bed, onto which paving slabs can be laid.

Screed - onto which a resin type finish or tiling can be applied.

Drainage layer on top which soil or growing medium is applied to
Pads onto which paving slab/tiles applied

Adhesive for tiles
Asphalt wearing course.

Sources of Information or Guidance:

BS 8102:2009 Code of Practice for protection of below ground structures against water from the ground
This is a guidance note. Where recommendations are made for specific tasks, these are intended to represent 'best

practice', i.e. recommendations that in the opinion of the PCA meet an acceptable level of competence. Although members are not required to follow the recommendations contained in the note, they should take into account the content.

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This guidance note is written and produced by the PCA Structural Waterproofing Group

For further information contact:

Property Care Association
11 Ramsay Court
Kingfisher Way
Hinchingsbrooke Business Park
Huntingdon
Cambs
PE29 6FY
Tel: Tel: 0844 375 4301
Fax: 01480 417587
Email: pca@property-care.org
Web: www.property-care.org

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