



# **Certificated Surveyor in Structural Waterproofing (CSSW)**

# **Syllabus**

**Property Care Association  
11 Ramsay Court, Kingfisher Way, Hinchingsbrooke Business Park, Cambs, PE29 6FY**

**Tel: 0844 375 4301 Fax: 01480 417587**

**Email: [pca@property-care.org](mailto:pca@property-care.org) Website: [www.property-care.org](http://www.property-care.org)**

***Edition 3 – 2013-2014 Incorporating BWPDA © PCA 2013. This syllabus may not be photocopied or reproduced in any other form except with written permission of the Property Care Association***

Registered No. 5596488

# Module 1

---

## Legal and Health & Safety Aspects of Remedial Treatments for Infestation, Dampness and Below Ground Waterproofing

### 1. Legal Requirements

*A Surveyor should:*

- 1.1 Understand the legal implications of a report and estimate.
- 1.2 Be able to demonstrate knowledge of the correct procedures and checks before undertaking a survey or writing a report.
- 1.3 Have knowledge of the various Codes of Practice and Guidance Notes relating to surveying, reporting and conducting remedial treatments work, structural waterproofing and associated works.
- 1.4 Understand the legal responsibilities placed on them for the health and safety and welfare of anyone that may be affected by their actions or inactions.
- 1.5 Be able to demonstrate knowledge of legislation concerning the protection of animals and the environment including the Wildlife and Countryside Act 1981 (revised 1991) and the Conservation (Natural Habits etc) Regulations 1994 (revised 2007).
- 1.6 Have general awareness of all other Acts and Regulations which could be applicable to remedial treatments, structural waterproofing and ancillary works.

### 2. Assessments

*A Surveyor should be able to demonstrate knowledge of:*

- 2.1 The differences between **hazard** and **risk**, as defined by the Health and Safety Executive.
- 2.2 Procedures for undertaking assessments required by regulations made under the Health and Safety at Work etc Act 1974, in particular the Control of Substances Hazardous to Health Regulations (COSHH) 2002, the Management of Health and Safety at Work Regulations 1999 and other relevant health and safety legislation.
- 2.3 Information on product labels and in other sources of safety data.

### 3. Product Safety

*A Surveyor should be able to:*

- 3.1 Demonstrate knowledge of the product hazards, limited to information on labels and in manufacturers' material safety data sheets.
- 3.2 Demonstrate knowledge of the safe handling of products and materials, the labeling of containers and how to deal with any fluid spillage.
- 3.3 Describe the correct procedures for storing and transporting products and materials.

### 4. Safe Methods of Use

*A Surveyor should:*

- 4.1 Understand the correct procedures for protecting the public and the environment.

- 4.2 Demonstrate knowledge of the precautions to be taken by users of products, materials and machinery including appropriate protective clothing and equipment.
- 4.3 Demonstrate knowledge of the relevant legislation governing the disposal of products, other materials used, contaminated waste and general building waste.
- 4.4 Have an understanding of ancillary risks associated with work in buildings such as fire, electrocution, falls, confined spaces, access equipment and temporary support.
- 4.5 Understand the correct procedure in the event of accidents including fires.

# Module 4

---

## Below Ground Waterproofing

### 1. Building Construction

*A Surveyor should have general knowledge of building construction and materials in the United Kingdom and in particular should be able to:*

- 1.1 Identify the various types of concrete and masonry and their permeability to moisture.
- 1.2 Understand the methods of damp-proofing and structural waterproofing used during construction.
- 1.3 Demonstrate knowledge of ventilation requirements in a building.
- 1.4 Evaluate the structural implications of any treatment to be advised and to decide if it is within the competence of the remedial company concerned.
- 1.5 Understand factors relating to soil permeability, grading, loading and consolidation.
- 1.6 Understand the implications of dampness affecting timber in buildings, identify timbers that have been affected by decay fungi or wood boring insects and give suitable advice on the need for specialist assessment.

### 2. Diagnosis of the Origin of Water Ingress

*A Surveyor must have knowledge of the theory of moisture movement and the practical methods of diagnosis including:*

- 2.1 The causes and effects of dampness in buildings, including the ingress of water, capillary moisture and surface and interstitial condensation and their cure.
- 2.2 Physical aids to detection of moisture including the use of moisture meters and interpretation of results.

### 3. Basic Principles of Structural Waterproofing

*A Surveyor should:*

- 3.1 Be fully conversant with BS8102: 2009, BSWA/BCA Design Guide, Approved Documents: Basements for Dwellings and other documents relating to structural waterproofing and control of dampness in Buildings.
- 3.2 Understand water movement, drainage, water tables and hydrostatic pressure/capillarity.
- 3.3 Understand design philosophy for structural waterproofing.
- 3.4 Have a full knowledge of structural waterproofing systems available and to be able to select and design the appropriate system for the conditions identified.
- 3.5 Be able to combine systems of different types and know the limitations of such processes.
- 3.6 Understand the effects of loads on a material, deformation, stress/strain especially bending, compressive and tensile stresses.
- 3.7 Understand the effects of hydrostatic pressure on a waterproofed structure and floatation.

#### **4. Product Safety and Safe Use**

*A Surveyor should be able to demonstrate knowledge of:*

- 4.1 Waterproofing products that may be specified including active ingredients and their method of action.
- 4.2 Specify the correct application rate and calculate the quantities of product required to complete the structural waterproofing works specified.

#### **5. Surveying and Reporting**

*A Surveyor should be able to:*

- 5.1 Identify and report on the causes of dampness and sources of water ingress.
- 5.2 Advise on safe remedial measures and any appropriate ancillary works.
- 5.3 Assess ground conditions and structure.
- 5.4 Following assessment, prepare a full and comprehensive report and specification.
- 5.5 Be able to demonstrate knowledge of the financial and practical implications of the defect and the repair strategies proposed.

#### **6. Materials and Methods**

*A Surveyor must fully understand the performance characteristics of the commonly used products and their methods of application including:*

- 6.1 General principles of cementitious systems including sand/cement mixes, hydration of cements, shrinkage, bonding, importance and construction of floor/wall junctions, fixings and decoration.
- 6.2 General principals of structurally integral protection (type b) waterproofing systems.
- 6.3 General principles for cavity drains (internal and external) including fixings, fixing, lapping, sumps and pumps, floor/wall junction construction.
- 6.4 Maintenance of waterproofing systems and understand the need for on-going servicing maintenance and aftercare.
- 6.5 Recognise other waterproofing systems, their uses and limitations including bonded sheet membranes, bentonite clay membranes, liquid applied membranes, mastic asphalt and chemical grouts.
- 6.6 Understand and recognise the advantages and disadvantages of the different systems.

#### **7. Ancillary Procedures**

*A Surveyor should have general knowledge of the ancillary and supporting procedures and other methods which are employed in the control of dampness including:*

- 7.1 All types of finishing systems including decorative finishes.
- 7.2 Maintenance of water management systems (land drains, sumps, pumps, channels).