



THE INSTITUTE OF WOOD PRESERVING AND DAMP-PROOFING

# ASRT SYLLABUS

## MODULE 1:

***Legal and Health & Safety Aspects of Remedial Treatments for Timber Infestation, Decay and Dampness***

### **1. Legal Requirements**

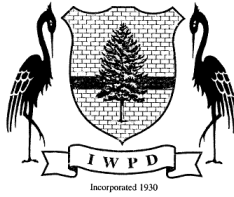
*A Surveyor should:*

- 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 and when undertaking a survey or writing a report.
- 1.3 Have knowledge of the various Codes of Practice and Guidance Notes relating to surveying, reporting, specifying and conducting remedial treatment work.
- 1.4 Have general awareness of all Acts and Regulations, which could be applicable to remedial treatments.

### **2. Assessments**

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

- 2.1 Assessments required under the Control of Pesticides Regulations 1986.
- 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) 1994, and the Management of Health and Safety at Work Regulations 1992.
- 2.3 The difference between *hazard* and *risk*.
- 2.4 Information on product labels and in other sources of safety data.



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### **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 data sheets.
- 3.2 Demonstrate knowledge of the safe handling and dilution of concentrated products, the labelling of containers for the diluted fluid and how to deal with any fluid spillage.
- 3.3 Specify the correct application rate and calculate the quantities of product required to complete the remedial works specified.
- 3.4 Describe the correct procedures for storing and transporting chemicals.

### **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 chemicals and machinery including appropriate protective clothing and equipment.
- 4.3 Have an understanding of ancillary risks associated with work in buildings such as fire, electrocution and falls.
- 4.4 Demonstrate knowledge of the relevant legislation governing the disposal of chemicals, empty containers, treated wood and general building waste.
- 4.5 Understand the correct procedures in the event of accidents including fires.
- 4.6 Have knowledge of where to obtain further information on relevant health, safety and legal matters.



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### MODULE 2:

#### ***The Identification and Remedial Treatment of Infested and Decayed Timber***

##### **1. Building Construction**

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

- 1.1 Identify the structural and joinery timbers in a property and their purposes.
- 1.2 Evaluate the structural implications of any treatment to be advised and to decide if it is within competence of the remedial Treatment Company concerned.
- 1.3 Identify any source of dampness affecting the timbers in a building and give suitable advice to correct the fault or faults.
- 1.4 Advise on ventilation requirements in a building.

##### **2. Structure of Wood**

*A Surveyor should have general knowledge of the structure and composition of wood and be able to:*

- 2.1 Identify sapwood and heartwood.
- 2.2 Differentiate between softwoods and hardwoods.
- 2.3 Demonstrate some knowledge of the natural durability of timber.
- 2.4 Identify physical and chemical degradation of timber in buildings.
- 2.5 Understand the effect of timber permeability on the penetration of preservative when applied by various methods, including pre-treatment.
- 2.6 Understand the generic forms of pre-treatment; the common industrial methods employed and the preservative types used. Understand the advantages and disadvantages of commonly used methods.



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### 3. Surveying and Reporting

*A Surveyor should:*

- 3.1 Be able to identify and report on the cause of degradation of the timbers.
- 3.2 Be able to advise on safe remedial measures and any appropriate ancillary works required, including the *In situ* use of wood preservative if necessary.
- 3.3 Understand 'alternative' or 'non-pesticide based' approaches to treatment of timber decay.
- 3.4 Understand the provisions for *in situ* use of pentachlorophenol (PCP) under the Control of Pesticides Regulations 1986.
- 3.5 Where necessary, be able to specify an appropriate preservative treatment for replacement timbers.
- 3.6 Demonstrate a knowledge of wood preservatives that may be specified including:
  - (a) Active ingredients, their methods of action and spectrum of activity.
  - (b) Preservative types, their composition and performance characteristics.
  - (c) Methods of application and their effect on preservative performance.

### 4. Wood Borers

*Correct identification of woodborers attacking the timbers is essential if the appropriate treatment is to be advised.*

*A Surveyor should:*

- 4.1 Be able to recognise the following from holes in the timber, the damage to the timber and the frass when present, understand the environmental conditions suitable for insect attack:



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### **Beetles**

|                               |                         |
|-------------------------------|-------------------------|
| <i>Anobium punctatum</i>      | Common Furniture Beetle |
| <i>Ernobius mollis</i>        | Bark Borer              |
| <i>Lyctus spp</i>             | Powderpost Beetle       |
| <i>Hylotrupes bajulus</i>     | House Longhorn Beetle   |
| <i>Xestobium rufovillosum</i> | Death Watch Beetle      |
| <i>Nacerdes melanura</i>      | Wharf Borer             |

Forest Longhorn  
Pinhole and Shothole Borers

Wood Boring Weevils  
Marine Borers  
Wood Wasps  
Termites  
Non-wood boring insects

- 4.2 Understand the significance of the insect attack in terms of the treatment required.

If termites are found details of treatment will not be required but surveyors should be aware of notification procedures.

### **5. Fungi**

*The presence of fungi in buildings indicates that damp conditions exist or have existed.*

*A Surveyor should:*

- 5.1 Know the moisture content of timber necessary for the development of fungi.
- 5.2 Be able to identify the following fungi from fungal growths, including any fruiting bodies, strands or mycelium present and damage of timber where present:



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### **Decay Fungi**

*Asterostroma spp*  
*Coniophora puteana*  
*Donkioporia expansa*  
*Fibroporia vaillantii*  
*Paxillus panuoides*  
*Phellinus contiguus*  
*Pleurotus ostreanus*

All the above are wet rots

*Serpula lacrymans*

Dry Rot

### **Plaster fungi**

*Coprinus spp*  
*Peziza spp*

Moulds and slime moulds  
Blue stain in service  
Sap stain

- 5.2 Understand the significance of fungal growths in terms of the treatment required.



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### **MODULE 3:**

#### ***The Identification and Control of Dampness***

##### **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 masonry and their permeability to moisture and chemicals.
- 1.2 Understand the methods of damp proofing 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.

##### **2. Diagnosis of Dampness**

*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 condensation, and their cure.
- 2.2 Physical aids to detection of moisture including the use of moisture meters and interpretation of results.
- 2.3 The use of chemical analysis as an aid to diagnosis.

##### **3. Surveying and Reporting**

*A Surveyor should:*

- 3.1 Be able to identify and report on the causes of dampness.
- 3.2 Be able to advise on safe remedial measures and any appropriate ancillary works.

##### **4. Materials and Methods**

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



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- 4.1 Chemical damp-proofing products including, where relevant, solvent and water-based variants:
- (a) Silicones
  - (b) Siliconates
  - (c) Polyoxo aluminium stearate
  - (d) Polysiloxane/Silane micro-emulsions
  - (e) Injection mortars
- 4.2 Application methods:
- (a) High pressure injection
  - (b) Low pressure injection
  - (c) Gravity feed
  - (d) Slurry guns and pumps

### 5. 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:*

- 5.1 All types of tanking, dry lining and cavity drain systems.
- 5.2 Re-plastering and decorating products following the insertion of a chemical damp-proof course.
- 5.3 Externally applied water repellents and renders.
- 5.4 Other methods including:
  - (a) Electro-osmosis
  - (b) Siphon systems (evaporation tubes)
  - (c) Physical systems

**PLEASE REFER TO THE ENCLOSED GUIDANCE FOR  
ASRT CANDIDATES AND ASSESSMENT APPLICATION FORM**