



REGISTERED ARCHITECTURAL IRONMONGER

2010

OPTIONAL COURSE WORK

SEALS

REGISTRATION No.

INTRODUCTION

This paper is the optional course work for 2010 and has a value of 2 CPD points towards your total. Your completed answers should be sent to the Guild offices for assessment by **30th November 2010**. You are strongly advised to retain a photocopy in case papers are lost in transit.

The course work is designed to test your current knowledge and bring it up to date. We suggest that the following resources should be helpful:

The GAI Level 1 Manual L1.8 on Seals which is available in pdf format using your Reg. AI log in - www.gai.org.uk.

Manufacturers, their manuals and websites. To complete this course work you are strongly recommended to research with several supply sources of the products included in the questions.

Your answers are to be **handwritten**, therefore please ensure that they are legible and that any technical terms are spelt correctly.

It is recognised that many work together with others in their research for this work. However, it is essential that you demonstrate that your submitted work is your own.

If you have any queries please contact the Guild office.

The Guild of Architectural Ironmongers

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E1 3JU

MANUAL PAGE

Page 4. Section 1.

Q1. What should door seals and thresholds do?

We have given you two examples of what door seals and thresholds do, give details of the other five.

1. _____
2. **Suit the door, frame or threshold to which they are fitted**
3. _____

4. _____

5. _____

6. _____

7. **Have a long service life**

Page 9. Section 2.

Q2. The need for seals and thresholds

We have provided one example of a something we need to prevent transferring from one area to another, give details of one other.

1. **Anything environmentally unfriendly**
2. _____

Pages 10 to 13. Section 2.

Q3. Why are seals and thresholds necessary?

Two examples are given of why seals and thresholds are necessary, provide another eight instances where seals are necessary.

1. Fire

2. Smoke

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

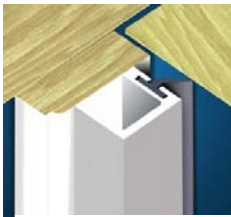
9. _____

10. _____

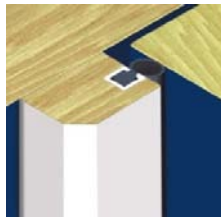
Page 15. Section 3.

Q4. Types of seal and their locations

Study the following three images. Name the type of perimeter seal and how it is fitted.



1



2



3

1. _____

2. _____

3. _____

Page 17. Section 3.

Q5. Types of seal and their locations

Name the other sealing plane, one location is provided.

1. Mid sealing plane

2. _____

Page 21. Section 4.

Q6. Contending with the environment

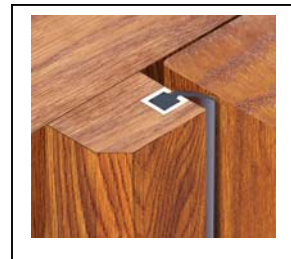
Name the Building Regulations publication concerned with resistance to moisture.

Page 22. Section 4.

Q7. Contending with the environment

Provide answers to the four questions concerning the image:

1. Which type of blade is fitted into the carrier?
2. Is the carrier morticed, let in or surface fixed?
3. Is the seal obvious or unobtrusive?
4. For which types of door frame is this seal most suitable?



1. _____

2. _____

3. _____

4. _____

Page 23. Section 4.

Q8. Contending with the environment

Heavy duty threshold seals provide five duties. We have given you one of them now provide details of the other four.

1. _____
2. _____
3. _____
4. **Provide a clear delineation between adjacent floor levels**
5. _____

Q9. Contending with the environment

The illustrations on page 23 demonstrate that the two floor seals have different end profiles on the internal side. Please explain the reason for the difference between the two.

1. **The top image.** _____
2. **The bottom image.** _____

Page 25. Section 4.

Q10. Contending with the environment

Describe the type of blade suitable for each of the following situations.

1. **Provide easy access and low friction**

2. **Suitable for heavy compression situations**

3. **Normal standard applications**

Page 26. Section 4.

Q11. Contending with the environment

What is the popular name for the seal illustrated?

Page 28. Section 4.

Q12. Contending with the environment

The heavy duty sweep style EDPM seal carrier is shown surface fixed to the underside of the door.

What is the alternative carrier position?

Q13. Contending with the environment

The alternative heavy duty sweep seal illustrated may also be applied in another position.

1. What is the other position, and where is the seal fitted?
2. What is the name for seals fixed in this position?

1.

2.

Page 32. Section 4

Q14. Contending with the environment

Describe in detail the 'easy' method of sealing doors and windows against heat loss.

Page 37. Section 5.2

Q15. Acoustics

Describe three methods by which sound travels through a building.

1. _____

2. _____

3. _____

Page 38. Section 5.2

Q16. Acoustics

**Using the 'rough' guide which type of door would you recommend in a 100mm stud wall?
Plasterboard and skin both sides to achieve a 33 db overall rating**

Page 40. Section 5.2

Q17. Acoustics

What is the db rating recommended for 1.Music rooms and 2.Other areas in schools?

1. Music rooms _____
2. Other areas _____

Page 45. Section 5

Q18. Inclusive design

What is the maximum stipulated height for a threshold seal complying with Approved document M?

Page 46. Section 5.4

Q19. Inclusive design

Which type of seal provides a clear threshold for wheelchair users but will still carry out the function of a draught or acoustic seal as necessary?
