

# TRAINING PLAN

## Basic Techniques

Heat-welded, Bitumen adhered  
and Self-adhesive Membranes



## COURSE DESCRIPTION

This training program is intended for apprentice roofers as well as experienced roofers who are not familiar with elastomeric bitumen based products. It will give roofers who have practical experience, but who have not received formal training, the opportunity to upgrade their knowledge base and support the skills they have acquired on the work site.

Qualifications:

None.

Content:

This course will give participants the opportunity to watch demonstrations and participate in workshops for the installation of classic roofing systems\*. Subjects included vary from membrane characteristics and job site safety to industry requirements and appropriate installation methods for all products.

Objective:

At the conclusion of this course, participants will possess the necessary basics to efficiently carry out the methods required for standard systems such as bitumen adhered and heat-welded membrane and self-adhesive base sheets on upstands.

Duration:

20 hours

Evaluation Method:

There is no examination in this course.

To prove acquisition of the required knowledge, the participant must be able to demonstrate his or her capacity to perform instructions as given by the course giver.

**\* Classic Roofing Systems = Heat-Welded or Hot Bitumen Fastened Membrane.**

## **GENERAL OBJECTIVES**

Understanding of installation of modified bitumen membranes by the hot bitumen, heat-welded and self-adhesive methods.

Development of the installation skills for installation of hot bitumen, heat-welded and self-adhesive membranes.

Understanding of the safety regulations relative to the tools required for the hot bitumen, heat-welded and self-adhesive installation of modified bitumen membranes.

Understanding of the general characteristics of elastomeric bitumen membranes.

## **SPECIFIC OBJECTIVES**

Participants will be able to identify the various characteristics of elastomeric bitumen membranes.

Given any situation, participants will be able to state the surface condition preparations appropriate to the installation of elastomeric bitumen membranes.

Given any situation, participants will be able to identify fire danger zones on a roof.

Given any situation, participants will be able to state preventive measures required for the installation of elastomeric bitumen membranes.

Participants will be able to state the requirements for the installation of elastomeric bitumen membranes in specific weather conditions (for example, winter conditions).

Participants will be able to state the requirements for overlaps and sequencing of membranes.

Participants will be able to waterproof standard surfaces and upstands with heat-welded elastomeric membranes using a propane torch.

Participants will be able to waterproof standard surfaces with a mop.

Participants will be able to waterproof upstands with elastomeric bitumen membranes using a heavy roller.

Participants will be able to waterproof roofing details, specifically ridges, drains and vents, using appropriate tools and materials

### **BASIC SAFETY AND FIRE PRECAUTIONS (theoretical)**

Risks/preventive measures

FR products

Self-adhesive membranes

Using hot asphalt and kettles

Using hazardous material

Monitoring after torched-on work has been completed

### **WATERPROOFING MATERIALS AND TOOLS (theoretical)**

Raw materials and composition of membranes

Commonly used products

Complementary products

Description and use of basic tools

Assembly and maintenance techniques: torch, etc.

### **BITUMEN ADHERED FIELD BASE SHEET (practical)**

Surface preparation

Acceptable substrates

Cool and cold conditions

Unrolling and aligning membranes

Mopping bitumen

Overlaps

Common defects to avoid

### **THERMOFUSIBLE FIELD BASE SHEET MEMBRANE APPLICATION (practical)**

Surface preparation

Acceptable substrates

Cool and cold conditions

Unrolling and aligning membranes

Welding techniques

Overlaps

Common defects to avoid

### **SELF ADHESIVE BASE SHEET FLASHING MEMBRANE (practical)**

Surface preparation

Acceptable substrates

Cool and cold conditions

Cutting inside and outside corners

Installation techniques

Overlaps

Common defects to avoid

### **THERMOFUSIBLE BASE SHEET FLASHING MEMBRANE (practical)**

Surface preparation  
Acceptable substrates  
Safety procedure  
Cutting inside and outside corners  
Welding techniques  
Overlaps  
Common defects to avoid

### **MEMBRANE INSTALLATION ON VARIOUS DETAILS (theoretical)**

Fascia boards  
Drains  
Vents  
Common defects to avoid

### **THERMOFUSIBLE FIELD CAP SHEET MEMBRANES (practical)**

Cool and cold conditions  
Unrolling and aligning membranes  
Welding techniques  
Overlaps  
Common defects to avoid

### **THERMOFUSIBLE FLASHING CAP SHEET MEMBRANES (practical)**

Cool and cold conditions  
Unrolling and aligning membranes  
Welding techniques  
Overlaps  
Common defects to avoid

### **RECOVERING (theoretical)**

Application technique for an additional membrane on an existing surface and upstands already recovered with a membrane

### **REVISION OF CONCEPTS GIVEN DURING TRAINING (theoretical)**

Recognition of application faults, corrective measures and prevention.  
Repairs: techniques and procedures  
Round Table: comments and questions from participants

### **END OF TRAINING SESSION**