

<b>Title:</b>	<b>Apply Surface Finishes to External Wall Insulation</b>
<b>Level:</b>	3
<b>Credit value:</b>	7
<b>GLH</b>	70
<b>Unique Reference Number:</b>	<b>A/650/7450</b>
<b>Aim:</b>	The aim of this unit is to provide learners with the skills and knowledge to be able to interpret information required in order to apply surface finishes to external insulation
<b>Assessment</b>	Assessment of this unit will be through the completion of a NOCN devised practical task and associated knowledge questions (written or verbal). This unit is internally assessed and internally and externally quality assured using the NOCN assessment booklet to evidence all learning outcomes.
<b>Learning outcomes</b>	
<i>The learner will:</i>	
1. Be able to interpret the information required in order to be able to apply surface finishes to external wall insulation.	
<b>Delivery content:</b>	
<p>The aim of this learning outcome is to provide the learners with the skills and knowledge to identify types of information, their source, accuracy, completeness and how they are interpreted in relation to applying surface finishes to external wall insulation.</p> <p>The learner must:</p> <ul style="list-style-type: none"> <li>• identify <b>documentation</b>, and the details contained, in order to be able to complete given tasks.</li> <li>• understand the relevance of an assessment of significance and its possible effect on the project.</li> <li>• know how emergencies should be responded to in accordance with organisational authorisation and personal skills.</li> <li>• identify relevant, current <b>legislation, standards</b> and official guidance and how they are applied</li> <li>• interpret current <b>legislation</b> and regulations governing buildings</li> <li>• identify different types of <b>drawings</b> and their purpose.</li> <li>• interpret different types of <b>drawings</b> including <b>common scales</b> and symbols and hatchings used.</li> <li>• read and apply measurements from the information provided.</li> <li>• identify and report any inaccuracies with the supplied information in accordance with organisational procedures.</li> <li>• use manufacturers' information to appropriately use resources.</li> </ul>	
2. Be able to identify tools, equipment and materials required to apply surface finishes to external wall insulation in accordance with manufacturers' guidance.	

### Delivery content:

The aim of this learning outcome is to provide the learners with the knowledge and skills to identify and select the **tools, equipment, and materials** required to apply surface finishes to external wall insulation.

The learner must:

- identify appropriate **pre installation checks**
- record and report key issues that may inhibit the commencement of work
- demonstrate how to calculate lengths and areas as required when applying surface finishes to external wall insulation
- explain how to check the suitability, compatibility and characteristics of the materials, components, fixings and finishes and determine if they are moisture open or moisture closed and their impact on the building.
- be able to select the required quantity and quality of resources for the appropriate methods of work
- know why the characteristics, compatibility, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be rectified
- identify the **hazards** associated with the resources and methods of work and how they are overcome
- identify the requirements from the provided information and confirm information is correct for the given tasks.
- identify how the resources should be used and how any problems associated with the resources are reported in relation to organisational procedures.
- carry out checks on all resources provided to ensure they are fit for purpose and free from defects.
- report and replace any defective resources in accordance with manufacturers' guidance, legislation and organisational procedures.

3. Be able to prepare work areas and materials in order to apply surface finishes to external insulation.

### Delivery content:

The aim of this learning outcome is to provide learners with the skills and knowledge to carry out preparations in order to apply surface finishes to external insulation.

The learner must:

- interpret risk assessments to identify **hazards** and ensure any **collective protection equipment** is used correctly.
- inspect the internal and external areas to identify that any additional issues or **hazards** are mitigated.
- report issues and mitigating work carried out in accordance with organisational procedures.
- ensure that the work area is cleared and ready for the given tasks and surrounding areas are protected correctly.
- ensure that all necessary repairs are completed prior to installation
- identify the weather restrictions for external wall system finishes
- carry out calculations to identify quantities of **materials** required for the given tasks.
- select and prepare the range of appropriate **materials** required.
- ensure all resources are in place and set out, safely and logically for the given tasks.

- understand the implication that the work may have on existing warranties and guarantees and how to identify them.
- identify when **specialist skills and knowledge** are required.
- Identify how to record, report and rectify **unintended consequences** not addressed in the design

4. Be able to carry out the application of surface finishes to external insulation.

**Delivery content:**

The aim of this learning outcome is to provide the learners with the skills and knowledge to apply surface finishes to external insulation.

The learner must:

- demonstrate how to fix corner surface beads and trims
- know how to apply base and primer coats, reinforcing mesh and stress patches
- know how to fit weather seals at interfaces, window and door reveals and at system penetrations in accordance with design details.
- know the different types of air and vapour control layers and breather membranes, where and how they should be used and why it is important to install them correctly.
- be able to carry out examples of appropriate **finishes** to an industry acceptable standard
- demonstrate how to reinstate a variety of fixtures and fittings and seal appropriately.
- demonstrate how to ensure the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity.

5. Be able to complete works following applying surface finishes to external insulation.

**Delivery content:**

The aim of this learning outcome is to provide the learners with the skills and knowledge to complete work.

The learner must:

- explain and demonstrate how to complete **post installation checks**
- identify why and how the disposal of waste must be carried out safely in accordance with the following:
  - current legislation
  - environmental responsibilities
  - organisational procedures
  - suppliers and manufacturers' information
  - data sheets
  - statutory regulations
  - official guidance
- explain why it is important to provide post installation advice and guidance to building occupants and clients including homeowner packs
- leave the work area in a safe clean condition, using collective protective measures as appropriate.
- ensure that work and the surrounding area is protected from the risk of damage
- complete all final paperwork as required and file correctly.

**Scope of Training**

The Scope of Training identifies areas that must be covered during the delivery of this unit. This is the minimum that is expected but tutors are expected to include other areas, knowledge of which will benefit their learners, based on location, types of work available and from the tutor's own professional experience.

**Assessment:**

The Assessment Workbook is available from NOCN.

	<b>Requirements</b>		
<b>Documentation</b>	Current legislation relating to health and safety Job specification Method statements Data sheets	Risk assessments Manufacturers guidance Building regulations Schedules	
<b>Drawings</b>	2D and 3D drawings BIM related models Site and location plans	Assembly plans Section plans	
<b>Common scales</b>	To include: 1:5, 1:10, 1:20, 1:50, 1:100 and 1:500		
<b>Tools</b>	Masonry drill Screw drivers Snips Measuring tape 25mm snap off knife Plastering trowel Whisk Spatulas Serrated spatulas	Battery drill Spirit level Lazer level Hot knife Rasp Plastic float Sealant gun Mesh holders Hopper guns	Hammer Grips Hot wire cutter Foam board saw Expanding foam gun Steel float Chalk lines Swiss trowels
<b>Equipment</b>	Sponges Vacuum cleaner Scaffold Working platform Mixer Fixing anchors Mesh Base track Trims	Sweeping brush Cleaning wipes Step ladder Hop up Water bucket Fixing bases Firtree fixings Corner beads	Dust sheets Floor protector rolls Cloths / rags Ladder Mixing buckets Drip profiles Door / window covers Stop beads
<b>Materials</b>	Waste bags / bin Masking tape Adhesive PU foam for joints Top coat Brick slips Paint finishes	Disposable covers Staples Insulation Base coat Water Dash finishes Proprietary pre-cast finishes	Screws Pipe clips Wall plugs Sealants Paints Synthetic or non-synthetic renders Brick effect render
<b>Personal protective equipment</b>	Steel toe-capped boots Gloves Goggles Hard hat	High-visibility clothing Respiratory protection Hearing protection Skin protection	

<b>Collective protective equipment</b>	Signage Barriers Sheeting	LEV (Local exhaust ventilation)
<b>Hazards</b>	Slips, trips and falls Working at height Confined spaces Manual handling Cuts and abrasions Dust inhalation Heat	Hazardous substances Fire Electrical equipment and leads Plant and equipment Chemical injuries Fumes
<b>Protection</b>	Signage Barriers Plastic/hessian sheeting	PPE LEV
<b>Special skills and knowledge</b>	Fire safety Electrical Media cables Signal receiving equipment Junction boxes	Asbestos Radon Heritage Ecology Ventilation Flue
<b>Unintended consequences</b>	The existence of thermal Bridges, thermal bypassing Water ingress	Ventilation Condensation risk
<b>Finishes</b>	Dash finishes Synthetic renders Non-synthetic renders Proprietary pre-cast finishes	Paint finishes Brick slips Brick effect render to external wall insulation systems including door and window reveals
<b>Pre installation check</b>	assessing, recording and reporting issues to include: suitable access property suitability structural integrity dampness decay vents and adequate ventilation	services (gas, electric, water, media cables) architectural features vegetation rainwater goods loose surface finishes external cracking water ingress damp proof course
<b>Post installation checks</b>	Compliance with specifications, Resistance to water penetration, Anchorage, Fixing,	Vents, Services (gas, electric, water, Media cables)