Pearson BTEC Level 2 Diploma in Thermal Insulation

Specification

BTEC Specialist qualification
First teaching November 2011

Issue 3
Edexcel, BTEC and LCCI qualifications
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This specification is Issue 3. Key changes are listed in the summary table on the next page. We will inform centres of any changes to this issue. The latest issue can be found on the Pearson website: qualifications.pearson.com

This qualification was previously known as:

Pearson BTEC Level 2 Diploma in Thermal Insulation (QCF)

The QN remains the same.

References to third party material made in this specification are made in good faith. Pearson does not endorse, approve or accept responsibility for the content of materials, which may be subject to change, or any opinions expressed therein. (Material may include textbooks, journals, magazines and other publications and websites.)

All information in this specification is correct at time of publication.

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Summary of changes made between previous issue and this current issue

<table>
<thead>
<tr>
<th>Change</th>
<th>Section number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All references to QCF have been removed throughout the specification</td>
<td></td>
</tr>
<tr>
<td>Definition of TQT added</td>
<td>Section 1</td>
</tr>
<tr>
<td>Definition of sizes of qualifications aligned to TQT</td>
<td>Section 1</td>
</tr>
<tr>
<td>TQT value added</td>
<td>Section 2</td>
</tr>
<tr>
<td>Reference to credit transfer within the QCF removed</td>
<td>Section 6</td>
</tr>
<tr>
<td>QCF references removed from unit titles and unit levels in all units</td>
<td>Section 12</td>
</tr>
<tr>
<td>Guided learning definition updated</td>
<td>Section 12</td>
</tr>
</tbody>
</table>

Earlier issue(s) show(s) previous changes.
If you need further information on these changes or what they mean, contact us via our website at: qualifications.pearson.com/en/support/contact-us.html.
Information for tutors

Unit 1: Work safely and efficiently in a thermal insulation work context 16

Unit 2: Erect and dismantle accessing equipment 20

Unit 3: Handle and move resources in a thermal insulation work context 23

Unit 4: Sheet metal insulation protection 26

Unit 5: Application of insulation to flat and cylindrical surfaces 29

13 Further information and useful publications 32

14 Professional development and training 33

Annexe A

Mapping with NVQ 34
## Purpose of this specification

The purpose of a specification as defined by Ofqual is to set out:

- the qualification’s objective
- any other qualification which a learner must have completed before taking the qualification
- any prior knowledge, skills or understanding which the learner is required to have before taking the qualification
- units that a learner must have completed before the qualification will be awarded and any optional routes
- any other requirements which a learner must have satisfied before the learner will be assessed or before the qualification will be awarded
- the knowledge, skills and understanding which will be assessed as part of the qualification (giving a clear indication of their coverage and depth)
- the method of any assessment and any associated requirements relating to it
- the criteria against which learners’ level of attainment will be measured (such as assessment criteria)
- any specimen materials
- any specified levels of attainment.
1 Introducing BTEC Specialist qualifications

BTEC Specialist qualifications are work-related qualifications available from Entry to Level 3 in a range of sectors. They give learners the knowledge, understanding and skills they need to prepare for employment in a specific occupational area. The qualifications also provide career development opportunities for those already in work. The qualifications may be offered as full-time or part-time courses in schools or colleges. Training centres and employers may also offer these qualifications.

Sizes of Specialist qualifications

For all regulated qualifications, Pearson specify a total number of hours that is estimated learners will require to complete and show achievement for the qualification – this is the Total Qualification Time (TQT). The TQT value indicates the size of a qualification.

Within the TQT, Pearson identifies the number of Guided Learning Hours (GLH) that we estimate a centre delivering the qualification might provide. Guided learning means activities, such as lessons, tutorials, online instruction, supervised study and giving feedback on performance, that directly involve tutors and assessors in teaching, supervising and invigilating learners. Guided learning includes the time required for learners to complete external assessment under examination or supervised conditions.

In addition to guided learning, other required learning directed by tutors or assessors will include private study, preparation for assessment and undertaking assessment when not under supervision, such as preparatory reading, revision and independent research.

As well as TQT and GLH, qualifications can also have a credit value – equal to one tenth of TQT, rounded to the nearest whole number.

TQT and credit values are assigned after consultation with users of the qualifications.

BTEC Specialist qualifications are available in the following sizes:

- **Award** – a qualification with a TQT value of 120 or less (equivalent to a range of 1–12 credits)
- **Certificate** – a qualification with a TQT value in the range of 121–369 (equivalent to a range of 13–36 credits)
- **Diploma** – a qualification with a TQT value of 370 or more (equivalent to 37 credits and above).
2 Qualification summary and key information

<table>
<thead>
<tr>
<th>Qualification title</th>
<th>Pearson BTEC Level 2 Diploma in Thermal Insulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification Number (QN)</td>
<td>600/3308/3</td>
</tr>
<tr>
<td>Date registrations can be made</td>
<td>01/11/2011</td>
</tr>
<tr>
<td>Age range that the qualification is approved for</td>
<td>16-18 19+</td>
</tr>
<tr>
<td>Credit value</td>
<td>37</td>
</tr>
<tr>
<td>Assessment</td>
<td>Centre-devised assessment (internal assessment)</td>
</tr>
<tr>
<td>Total Qualification Time (TQT)</td>
<td>370</td>
</tr>
<tr>
<td>Guided learning hours</td>
<td>235</td>
</tr>
<tr>
<td>Grading information</td>
<td>The qualification and units are at pass grade.</td>
</tr>
<tr>
<td>Entry requirements</td>
<td>No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification. However, centres must follow our Access and Recruitment policy (see Section 10, Access and recruitment)</td>
</tr>
</tbody>
</table>
Qualification title and Qualification Number

The qualification title, units and QN will appear on each learner’s final certificate. You should tell your learners this when your centre recruits them and registers them with us. There is more information about certification in our UK Information Manual, available on our website, qualifications.pearson.com

Objective of the qualification

The Pearson BTEC Level 2 Diploma in Thermal Insulation is for learners who work in, or want to work in the industry or to progress to thermal insulation engineer or related supervisory roles within the sector.

It gives learners the opportunity to:

- develop knowledge related to applying insulation to different surfaces, erecting and dismantling accessing equipment, handling and removing resources and following good practices such as working safely and efficiently throughout the qualification
- develop skills in thermal insulation
- achieve a nationally-recognised Level 2 Diploma
- develop their own personal growth and engagement in learning.

Apprenticeships


Progression opportunities through Pearson qualifications

Learners who have achieved the Pearson BTEC Level 2 Diploma in Thermal Insulation can use this as a base to enter the industry or to progress to thermal insulation engineering or related supervisory roles within the sector.
Industry support and recognition

This qualification is supported by Construction Skills, the SSC for construction. The Level 2 Diploma in Thermal Insulation has been developed in collaboration with Thermal Insulation Contractors Association (TICA).

Relationship with National Occupational Standards

This qualification relates to the National Occupational Standards as defined by Construction Skills. The mapping document in Annexe A shows the links between the units within this qualification and the National Occupational Standards.
3 Centre resource requirements

As part of the approval process, centres must make sure that the resource requirements below are in place before offering the qualification.

General resource requirements

- Centres must have appropriate physical resources (for example, equipment, IT, learning materials, teaching rooms) to support the delivery and assessment of the qualification.
- Staff involved in the assessment process must have relevant expertise and occupational experience.
- There must be systems in place to make sure continuing professional development for staff delivering the qualification.
- Centres must have appropriate health and safety policies in place relating to the use of equipment by learners.
- Centres must deliver the qualifications in accordance with current equality legislation.
4 Qualification structure

Pearson BTEC Level 2 Diploma in Thermal Insulation

The learner will need to meet the requirements outlined in the table below before Pearson can award the qualification.

The Pearson BTEC Level 2 Diploma in Thermal Insulation consists of 5 mandatory units, a total of 37 credits and 235 guided learning hours. Learners must achieve all units.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Unique Reference Number</th>
<th>Mandatory units</th>
<th>Level</th>
<th>Credit</th>
<th>Guided Learning Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T/503/5363</td>
<td>Work safely and efficiently in a thermal insulation work context</td>
<td>2</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>A/503/5364</td>
<td>Erect and dismantle accessing equipment</td>
<td>2</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>F/503/5365</td>
<td>Handle and move resources in a thermal insulation work context</td>
<td>2</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>J/503/5366</td>
<td>Sheet metal insulation protection</td>
<td>2</td>
<td>16</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>L/503/5367</td>
<td>Application of insulation to flat and cylindrical surfaces</td>
<td>2</td>
<td>16</td>
<td>100</td>
</tr>
</tbody>
</table>

Minimum number of credits that must be achieved 37
5 Assessment

The table below gives a summary of the assessment methods used in the qualification.

<table>
<thead>
<tr>
<th>Units</th>
<th>Assessment method</th>
</tr>
</thead>
<tbody>
<tr>
<td>All units</td>
<td>Centre-devised assessment</td>
</tr>
</tbody>
</table>

Centre-devised assessment (internal assessment)

Each unit has specified learning outcomes and assessment criteria. To pass an internally assessed unit, learners must meet all the assessment criteria. Centres may find it helpful if learners index and reference their evidence to the relevant learning outcomes and assessment criteria.

Centres need to write assignment briefs for the learners to show what evidence is required. Assignment briefs should indicate clearly, which assessment criteria are being targeted.

Assignment briefs and evidence produced by learners must also meet any additional requirements in the Information for tutors section of the unit.

Unless otherwise indicated in Information for tutors, the centre can decide the form of assessment evidence (eg performance observation, presentations, projects, tests, extended writing) as long as the methods chosen allow learners to produce valid, sufficient and reliable evidence of meeting the assessment criteria.

Centres are encouraged to provide learners with realistic scenarios and maximise the use of practical activities in delivery and assessment.

To avoid over assessment centres are encouraged to link delivery and assessment across units.

There is more guidance about internal assessment on our website. See Section 13. Further information and useful publications.
6 Recognising prior learning and achievement

Recognition of Prior Learning

Recognition of Prior Learning (RPL) is a method of assessment (leading to the award of credit) that considers whether a learner can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess and so do not need to develop through a course of learning.

Pearson encourages centres to recognise learners’ previous achievements and experiences in and outside the workplace, as well as in the classroom. RPL provides a route for the recognition of the achievements resulting from continuous learning.

RPL enables recognition of achievement from a range of activities using any valid assessment methodology. If the assessment requirements of a given unit or qualification have been met, the use of RPL is acceptable for accrediting a unit, units or a whole qualification. Evidence of learning must be sufficient, reliable and valid.

Further guidance is available in the policy document *Recognition of Prior Learning Policy*, available on our website, qualifications.pearson.com
7 Centre recognition and approval

Centres that have not previously offered Pearson qualifications need to apply for, and be granted, centre recognition as part of the process for approval to offer individual qualifications.

Existing centres get ‘automatic approval’ for a new qualification if they are already approved for a qualification that is being replaced by the new qualification and the conditions for automatic approval are met. Centres that already hold Pearson Centre approval are able to apply for qualification approval for a different level or different sector via Edexcel Online, up to and including level 3 only.

In some circumstances, qualification approval using Edexcel Online may not be possible. In such cases, guidance is available as to how an approval application may be made.

Approvals agreement

All centres are required to enter into an approval agreement that is a formal commitment by the head or principal of a centre to meet all the requirements of the specification and any associated codes, conditions or regulations. Pearson will act to protect the integrity of the awarding of qualifications. If centres do not comply with the agreement, this could result in the suspension of certification or withdrawal of approval.
8 Quality assurance of centres

Quality assurance is at the heart of vocational qualifications. The centre assesses Pearson BTEC qualifications. The centre will use quality assurance to make sure that their managers, internal verifiers and assessors are standardised and supported. Pearson use quality assurance to check that all centres are working to national standards. It gives us the opportunity to identify and provide support, if needed, to safeguard certification. It also allows us to recognise and support good practice.

For the qualifications in this specification, the Pearson quality assurance model will follow one of the processes listed below.

1 Delivery of the qualification as part of a BTEC apprenticeship ('single click’ registration):
   • annual visits by a Standards Verifier to review centre-wide quality assurance systems and sampling of internal verification and assessor decisions

2 Delivery of the qualification outside the apprenticeship:
   • an annual visit to the centre by a Centre Quality Reviewer to review centre-wide quality assurance systems
   • Lead Internal Verifier accreditation. This involves online training and standardisation of Lead Internal Verifiers using our OSCA platform, accessed via Edexcel Online. Please note that not all qualifications will include Lead Internal Verifier accreditation. Where this is the case, we will annually allocate annually a Standards Verifier to conduct postal sampling of internal verification and assessor decisions for the Principal Subject Area.

For further details please see the UK Vocational Quality Assurance Handbook on our website, qualifications.pearson.com
9 Programme delivery

Centres are free to offer the qualifications using any mode of delivery (for example full-time, part-time, evening only, distance learning) that meets their learners’ needs. Whichever mode of delivery is used, centres must make sure that learners have access to the resources identified in the specification and to the subject specialists delivering the units.

Those planning the programme should aim to enhance the vocational nature of the qualification by:

- liaising with employers to make sure a course is relevant to learners’ specific needs
- accessing and using non-confidential data and documents from learners’ workplaces
- developing up-to-date and relevant teaching materials that make use of scenarios that are relevant to the sector
- giving learners the opportunity to apply their learning in practical activities
- including sponsoring employers in the delivery of the programme and, where appropriate, in the assessment
- making full use of the variety of experience of work and life that learners bring to the programme.

Centres must make sure that any legislation is up to date and current.
10 Access and recruitment

Pearson’s policy regarding access to our qualifications is that:

- they should be available to everyone who is capable of reaching the required standards
- they should be free from any barriers that restrict access and progression
- there should be equal opportunities for all those wishing to access the qualifications.

Centres are required to recruit learners to BTEC specialist qualifications with integrity.

Applicants will need relevant information and advice about the qualification to make sure it meets their needs.

Centres should review the applicant’s prior qualifications and/or experience, considering whether this profile shows that they have the potential to achieve the qualification.

For learners with disabilities and specific needs, this review will need to take account of the support available to the learner during teaching and assessment of the qualification. The review must take account of the information and guidance in Section 11 Access to qualifications for learners with disabilities or specific needs.

Learners may be aged between 14 and 16 and therefore potentially vulnerable. Where learners are required to spend time and be assessed in work settings, it is the centre’s responsibility to ensure that the work environment they go into is safe.
11 Access to qualifications for learners with disabilities or specific needs

Equality and fairness are central to our work. Pearson’s Equality Policy requires all learners to have equal opportunity to access our qualifications and assessments and that our qualifications are awarded in a way that is fair to every learner.

We are committed to making sure that:

- learners with a protected characteristic (as defined by the Equality Act 2010) are not, when they are undertaking one of our qualifications, disadvantaged in comparison to learners who do not share that characteristic
- all learners achieve the recognition they deserve from undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

For learners with disabilities and specific needs, the assessment of their potential to achieve the qualification must identify, where appropriate, the support that will be made available to them during delivery and assessment of the qualification. Please see the information on reasonable adjustments and special consideration in Section 4, Assessment.

Learners taking a qualification may be assessed in British sign language or Irish sign language where it is permitted for the purpose of reasonable adjustments.
12 Units

Units have the following sections.

Unit title

This is the formal title of the unit that will appear on the learner’s certificate.

Unit reference number

Each unit is assigned a unit reference number that appears with the unit title on the Register of Regulated Qualifications.

Level

All units and qualifications have a level assigned to them. The level assigned is informed by the level descriptors defined by Ofqual, the qualifications regulator.

Credit value

When a learner achieves a unit, they gain the specified number of credits.

Guided learning hours

Guided Learning Hours (GLH) is the number of hours that a centre delivering the qualification needs to provide. Guided learning means activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners, for example lectures, tutorials, online instruction and supervised study.

Unit aim

This gives a summary of what the unit aims to do.

Essential resources

This section lists any specialist resources needed to deliver the unit. The centre will be asked to make sure that these resources are in place when it seeks approval from Pearson to offer the qualification.

Learning outcomes

Learning outcomes of a unit set out what a learner knows, understands or is able to do as the result of a process of learning.
Assessment criteria

Assessment criteria specify the standard required by the learner to achieve each learning outcome.

Unit amplification

This section clarifies what a learner needs to know to achieve a learning outcome.

Information for tutors

This section gives tutors information on delivery and assessment. It contains the following subsections.

- **Delivery** – explains the content’s relationship to the learning outcomes and offers guidance on possible approaches to delivery.
- **Assessment** – gives information about the evidence that learners must produce, together with any additional guidance if appropriate. This section should be read in conjunction with the assessment criteria.
- **Indicative resource materials** – lists resource materials that can be used to support the teaching of the unit, for example books, journals and websites.
Unit 1: Work safely and efficiently in a thermal insulation work context

Unit reference number: T/503/5363
Level: 2
Credit value: 1
Guided learning hours: 7

Unit aim
This unit focuses on knowing the relevant statutory requirements, organisational procedures and security procedures related to safety.
Learners will gain knowledge on how to plan, organise and adopt safe and efficient working practices, as well as knowing their personal responsibility for working safely when working in thermal insulation.
To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

<table>
<thead>
<tr>
<th>Learning outcomes</th>
<th>Assessment criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Know relevant current statutory requirements and official guidance relating to safe and efficient working in thermal insulation</td>
<td>1.1 Outline the procedure for recording/reporting hazards in the workplace</td>
</tr>
<tr>
<td></td>
<td>1.2 Describe relevant safety/warning signs, including how to comply with them</td>
</tr>
<tr>
<td></td>
<td>1.3 Describe the purpose of relevant statutory requirements and/or safety notices and warning signs displayed in the workplace</td>
</tr>
<tr>
<td></td>
<td>1.4 Describe the safe use of fire extinguishers as appropriate to the types of fire</td>
</tr>
<tr>
<td>2. Know your personal responsibilities for working safely and efficiently in thermal insulation</td>
<td>2.1 Describe the use of personal protective equipment according to legislation and/or organisational requirements for thermal insulation</td>
</tr>
<tr>
<td></td>
<td>2.2 Outline what is required of individuals when working in the thermal insulation industry</td>
</tr>
<tr>
<td></td>
<td>2.3 Describe how to behave safety in the workplace, including as an individual and when working with others</td>
</tr>
<tr>
<td>3. Understand procedures for maintaining the security of the thermal insulation workplace</td>
<td>3.1 Outline security procedures which relate to the working day</td>
</tr>
<tr>
<td></td>
<td>3.2 Describe security procedures which relate to the completion of the day’s work</td>
</tr>
<tr>
<td></td>
<td>3.3 Explain security procedures which relate to the unauthorised personnel, including other operatives and the general public</td>
</tr>
<tr>
<td></td>
<td>3.4 Assess security procedures which relate to theft</td>
</tr>
<tr>
<td>Learning outcomes</td>
<td>Assessment criteria</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>4</td>
<td>Know how to plan, organise and adopt safe and healthy work practices</td>
</tr>
<tr>
<td></td>
<td>4.1 Outline the requirements of planning for safe working</td>
</tr>
<tr>
<td></td>
<td>4.2 Describe organisational procedures in case of accident</td>
</tr>
<tr>
<td></td>
<td>4.3 Describe organisational emergency procedures, including fire</td>
</tr>
<tr>
<td>5</td>
<td>Know how to plan and carry out productive, efficient working practices</td>
</tr>
<tr>
<td></td>
<td>5.1 Describe statutory requirements and/or official guidance for the thermal insulation and the work area</td>
</tr>
</tbody>
</table>
Information for tutors

Assessment

The centre will devise and mark the assessment for this unit. Learners must meet all assessment criteria to pass the unit. This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.
Unit 2: Erect and dismantle accessing equipment

Unit reference number: A/503/5364
Level: 2
Credit value: 1
Guided learning hours: 8

Unit aim
This unit focuses on accessing equipment and its requirements. Learners begin by identifying which accessing equipment is required for a range of situations and how to erect and dismantle accessing equipment through the usage of appropriate tools following regulatory/manufacturer’s instructions and health and safety guidelines.
Learning outcomes, assessment criteria and unit amplification

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

<table>
<thead>
<tr>
<th>Learning outcomes</th>
<th>Assessment criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Be able to assess the requirement for general accessing equipment</td>
<td>1.1 Describe which sort of accessing equipment is preferred for a range of situations</td>
</tr>
<tr>
<td></td>
<td>1.2 Identify the extent of access required</td>
</tr>
<tr>
<td></td>
<td>1.3 Identify the requirement to use accessing equipment</td>
</tr>
<tr>
<td></td>
<td>1.4 Determine the means by which access can be achieved</td>
</tr>
<tr>
<td>2 Be able to erect general accessing equipment</td>
<td>2.1 Select appropriate tools/equipment to provide safe and secure access</td>
</tr>
<tr>
<td></td>
<td>2.2 Prepare accessing equipment ready for use, according to safe and healthy instructions</td>
</tr>
<tr>
<td></td>
<td>2.3 Set up accessing equipment according to regulatory/manufacturer’s requirements, using recognised and approved techniques</td>
</tr>
<tr>
<td></td>
<td>2.4 Identify the means of fixing that are to be used to support and secure equipment</td>
</tr>
<tr>
<td></td>
<td>2.5 Secure accessing equipment according to safe and healthy instructions</td>
</tr>
<tr>
<td>3 Be able to dismantle general accessing equipment</td>
<td>3.1 Dismantle accessing equipment according to regulatory/manufacturer’s requirements, using recognised and approved techniques</td>
</tr>
<tr>
<td></td>
<td>3.2 Remove accessing equipment according to manufacturer’s recommendations and instructions</td>
</tr>
</tbody>
</table>
Information for tutors

Assessment

The centre will devise and mark the assessment for this unit.
Learners must meet all assessment criteria to pass the unit.
This unit is assessed in the workplace or in conditions resembling the workplace.
Learners can enter the types of evidence they are presenting for assessment and
the submission date against each assessment criterion. Alternatively, centre
documentation should be used to record this information.
Unit 3: Handle and move resources in a thermal insulation work context

Unit reference number: F/503/5365
Level: 2
Credit value: 3
Guided learning hours: 20

Unit aim
This unit focuses on learners developing their skills in handling, moving and positioning resources through the use of lifting equipment in a thermal insulation environment.
Learners will gain knowledge on the relevant statutory regulations and procedures which need to be adhered to when disposing of waste.
### Learning outcomes, assessment criteria and unit amplification

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

<table>
<thead>
<tr>
<th>Learning outcomes</th>
<th>Assessment criteria</th>
</tr>
</thead>
</table>
| 1. Be able to move, position, secure and use lifting aids and kinetic lifting techniques | 1.1 Use PPE when carrying out handling and moving activities in accordance with legislation and/or organisational requirements  
1.2 Identify the relevant legislation and official guidance relating to potential accidents and health hazards  
1.3 Use relevant technical, product and regulatory information to assess moving and handling requests  
1.4 Select materials, components and equipment to carry out moving and handling activities  
1.5 Use and store lifting aids and equipment safely and to recognised guidelines |
| 2. Be able to handle and store resources to meet product information and/or organisational requirements by manual procedures and lifting aids | 2.1 Move and store own work and that of team by manual procedures and lifting aids to recognised guidelines  
2.2 Move and store materials components and fixings by manual procedures and lifting aids to recognised guidelines  
2.3 Move and store tools and equipment by manual procedures and lifting aids to recognised guidelines  
2.4 Protect products and their surroundings from damage when moving and handling |
| 3. Know how to dispose of waste packaging in accordance with legislation to minimise damage and maintain a clean work space | 3.1 Describe environmental responsibilities relating to waste disposal  
3.2 Describe the organisational procedures for the disposal of waste packaging  
3.3 Describe the documentation (manufacturer’s information, statutory regulations and official guidance) that must be adhered to when disposing of waste |
Information for tutors

Assessment

The centre will devise and mark the assessment for this unit. Learners must meet all assessment criteria to pass the unit.

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.
Unit 4: Sheet metal insulation protection

Unit reference number: J/503/5366
Level: 2
Credit value: 16
Guided learning hours: 100

Unit aim
This unit develops learners’ skills in drawing, measuring, marking cutting, forming, shaping, fitting, fixing and securing ferrous and non-ferrous metal cladding/protection to pipes, ducts and vessels in order to be able to produce and install sheet metal insulation protection.

Learners will learn about the resources associated with this work, such as sheet metal cladding materials, components and fixing and the safe use of hand- and power-tools and associated equipment.
Learning outcomes, assessment criteria and unit amplification

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

<table>
<thead>
<tr>
<th>Learning outcomes</th>
<th>Assessment criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Be able to interpret information to select materials, components and equipment,</td>
<td>1.1 Identify types and application of sheet metal according to specifications</td>
</tr>
<tr>
<td>to produce and install sheet metal insulation protection</td>
<td>1.2 Calculate the amount of sheet material, including wastage for given tasks</td>
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<td></td>
<td>1.3 Maintain and care for hand tools and portable power tools and associated equipment</td>
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<tr>
<td>2. Be able to fabricate and fit sheet metal cladding/protection over pipe, duct</td>
<td>2.1 Use drawing skills to develop geometric shaped templates for sheet metal insulation cladding/protection</td>
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<tr>
<td>and vessel insulation</td>
<td>2.2 Fabricate ferrous and non-ferrous sheet metal protection for insulated surfaces</td>
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<td></td>
<td>2.3 Fix and secure sheet metal to insulated surfaces</td>
</tr>
<tr>
<td>3. Be able to apply safe working practices whilst installing sheet metal insulation</td>
<td>3.1 Identify requirements of safety legislation</td>
</tr>
<tr>
<td>protection at all times</td>
<td>3.2 Describe how to protect work and the workplace from damage</td>
</tr>
<tr>
<td></td>
<td>3.3 Describe safe working practices for moving, handling and storing resources</td>
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<td></td>
<td>3.4 Carry out a risk assessment prior to the production and installation of sheet</td>
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<tr>
<td></td>
<td>metal protection for insulated surfaces</td>
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<tr>
<td></td>
<td>3.5 Follow safe working practices when producing and installing sheet metal</td>
</tr>
<tr>
<td></td>
<td>protection to insulated surfaces</td>
</tr>
</tbody>
</table>
**Information for tutors**

**Assessment**

The centre will devise and mark the assessment for this unit. Learners must meet all assessment criteria to pass the unit. This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.
Unit 5: **Application of insulation to flat and cylindrical surfaces**

Unit reference number: L/503/5367  
Level: 2  
Credit value: 16  
Guided learning hours: 100

**Unit aim**

This unit aims to give learners the skills and knowledge to select materials, components and equipment to apply insulation materials to surfaces and vessels whilst adopting safe working practices.
## Learning outcomes, assessment criteria and unit amplification

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

<table>
<thead>
<tr>
<th>Learning outcomes</th>
<th>Assessment criteria</th>
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</thead>
</table>
| **1** Be able to interpret information to select materials, components and equipment, to apply insulation to flat and cylindrical surfaces | 1.1 Identify typical characteristics of insulation material according to current British Standards  
1.2 Calculate the amount of materials, components and fixings required for given tasks  
1.3 Maintain and care for hand tools, portable power tools and associated equipment |
| **2** Be able to fit and apply rigid, slab and flexible insulation materials and finishes to pipes, ducts, flat surfaces and vessels | 2.1 Prepare surface areas for application of insulation materials to pipes and vessels  
2.2 Prepare rigid, slab and flexible types of insulation and finishing materials  
2.3 Apply insulation materials to pipes, ducts, flat surfaces and vessels  
2.4 Apply rigid, slab and flexible types of insulation and finishing materials to pipes, ducts, flat surfaces and vessels  
2.5 Use drawing skills to prepare insulation materials  
2.6 Cut and apply insulation material to specified surfaces |
| **3** Be able to apply safe working practices whilst applying insulation and finishes at all times | 3.1 Identify requirements of safety legislation  
3.2 Describe how to protect work and the workplace from damage  
3.3 Describe safe working practices for moving, handling and storing resources  
3.4 Carry out a risk assessment prior to the application of insulation materials and finishes  
3.5 Follow safe working practices when applying insulation |
**Information for tutors**

**Assessment**

The centre will devise and mark the assessment for this unit. Learners must meet all assessment criteria to pass the unit.

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.
13 Further information and useful publications

To get in touch with us visit our ‘Contact us’ pages:
- Edexcel, BTEC and Pearson Work Based Learning contact details: qualifications.pearson.com/en/support/contact-us.html
- books, software and online resources for UK schools and colleges: www.pearsonschoolsandfecolleges.co.uk

Key publications:
- Adjustments for candidates with disabilities and learning difficulties, Access and Arrangements and Reasonable Adjustments, General and Vocational qualifications (Joint Council for Qualifications (JCQ))
- Supplementary guidance for reasonable adjustments and special consideration in vocational internally assessed units (Pearson)
- General and Vocational qualifications, Suspected Malpractice in Examination and Assessments: Policies and Procedures (JCQ)
- Equality Policy (Pearson)
- Recognition of Prior Learning Policy and Process (Pearson)
- UK Information Manual (Pearson)
- BTEC UK Quality Assurance Centre Handbook

All of these publications are available on our website.

Publications on the quality assurance of BTEC qualifications are also available on our website.

Our publications catalogue lists all the material available to support our qualifications. To access the catalogue and order publications, please visit our website.

Additional resources

If you need further learning and teaching materials to support planning and delivery for your learners, there is a wide range of BTEC resources available.

Any publisher can seek endorsement for their resources and, if they are successful, we will list their BTEC resources on our website.
14 Professional development and training

Pearson supports UK and international customers with training related to BTEC qualifications. This support is available through a choice of training options offered on our website.

The support we offer focuses on a range of issues, such as:
- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing learner-centred learning and teaching approaches
- building in effective and efficient quality assurance systems.

The national programme of training we offer is on our website. You can request centre-based training through the website or you can contact one of our advisers in the Training from Pearson UK team via Customer Services to discuss your training needs.

BTEC training and support for the lifetime of the qualifications

Training and networks: our training programme ranges from free introductory events through sector-specific opportunities to detailed training on all aspects of delivery, assignments and assessment. We also host some regional network events to allow you to share your experiences, ideas and best practice with other BTEC colleagues in your region.

Regional support: our team of Curriculum Development Managers and Curriculum Support Consultants, based around the country, are responsible for providing advice and support in centres. They can help you with planning and curriculum developments.

To get in touch with our dedicated support teams please visit our website.

Your Pearson support team

Whether you want to talk to a sector specialist, browse online or submit your query for an individual response, there’s someone in our Pearson support team to help you whenever – and however – you need:
- Subject Advisors: find out more about our subject advisor team – immediate, reliable support from a fellow subject expert
- Ask the Expert: submit your question online to our Ask the Expert online service and we will make sure your query is handled by a subject specialist.

Please visit our website at qualifications.pearson.com/en/support/contact-us.html
Annexe A

Mapping with NVQ

The grid below maps the knowledge covered in the Pearson BTEC Level 2 Diploma in Thermal Insulation against the underpinning knowledge of the Pearson Edexcel Level 2 NVQ Diploma in Thermal Insulation (construction). Centres can use this mapping when planning holistic delivery and assessment activities.

**KEY**

- # indicates partial coverage of knowledge in the NVQ
- A blank space indicates no coverage of the knowledge

<table>
<thead>
<tr>
<th>Pearson BTEC Level 2 Diploma in Thermal Insulation</th>
<th>Unit 1</th>
<th>Unit 2</th>
<th>Unit 3</th>
<th>Unit 4</th>
<th>Unit 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Edexcel Level 2 NVQ Diploma in Thermal Insulation</td>
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<tr>
<td>1 Conforming to general safety in the workplace</td>
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<tr>
<td>3 Moving and handling resources in the workplace</td>
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<tr>
<td>4 Applying insulation and finishes to cylindrical and flat surfaces in the workplace</td>
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<tr>
<td>5 Fabricating sheet metal insulation protection from existing templates in the workplace</td>
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<tr>
<td>6 Fitting sheet metal insulation protection in the workplace</td>
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<tr>
<td>7 Erecting and dismantling access/working platforms in the workplace</td>
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</tbody>
</table>