



**GQA LEVEL 3 CERTIFICATE IN GLASS RELATED
OPERATIONS**

Qualification Number
500/7769/7

Welsh Qualification Number
C00/0196/3

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PERSONAL COMPETENCE SUMMARY

Name	Company/Centre
Job Title	GQA Registration Number

UNITS OF COMPETENCE				ASSESSOR SIGNATURE Performance and knowledge assessment completed and supplemented with evidence overtime	DATE
Unit Number	MANDATORY UNITS	Level	Credit		
T/600/8285 GRO1	Know how to Promote and Maintain Health and Safety in the Glass and Glass Related Working Environment	3	6		
K/600/8302 GRO2	Know how to Contribute to Improving the Effectiveness of the Glass Related Organisation	3	5		
T/600/8318 GRO3	Know how to Receive, Handle, Position and Store Glass and Glass Related Products and Materials	2	4		
R/600/8326 GRO4	Know how to Monitor and Check Quality Against Glass Related Specifications	3	4		
Optional Units of Credit – Minimum of 3 credits to be achieved					

RELIABLE EVIDENCE: The forms of evidence available include (mark as appropriate)

- | | |
|---|--|
| Observation in the workplace <input type="checkbox"/> | Assessment of knowledge <input type="checkbox"/> |
| Records of prior experience <input type="checkbox"/> | Witness statement(s) <input type="checkbox"/> |
| Testimonial(s) <input type="checkbox"/> | Photographic evidence <input type="checkbox"/> |
| Work records <input type="checkbox"/> | External testing <input type="checkbox"/> |



COMPETENCE COMPLETION SIGNATURES

By signing here, the Candidate and Assessor confirm that evidence presented is authentic and that the assessments took place in accordance with the relevant assessment strategy. Details of the assessments and evidence must be recorded in the assessment decision record/summaries at the end of each unit.

	Name and Signature	Date
Candidate		
Lead Assessor		
Internal Verifier		
EQA		

Introduction to the Qualification

Who is this Qualification for?

This qualification is aimed at individuals wishing to gain in depth knowledge of the requirements of working safely and effectively in a glass related working environment. Establishing in depth underpinning knowledge and understanding relevant to the Glass Industry, this qualification is intended to be capable of delivery through both a taught programme of off-the-job learning or through workplace assessment (for those with access to the real workplace).

Along with a number of generic glass industry units the group of optional units ensures there is a specific unit to cover the individual occupational roles in the glass industry. A further qualification in Glass Related Operations at Level 2 is also available

What is required from candidates?

These credits must be achieved in the correct combination from mandatory and optional units: this qualification has 4 mandatory units, with a total credit value of 19 credits, and a group of optional units. Candidates should achieve all 4 mandatory units, plus a minimum of 3 credits from the group of optional units. This makes the minimum credit value of the qualification 22 credits. Apprentices must also achieve the 3 credits from the Apprenticeship Pathway to enable full achievement of the Proskills Apprenticeship Framework. The units are made up of the things you need to know and the things you need to be able to do to carry out your job safely and correctly. These are called Learning Outcomes, and all must be met to achieve the unit.

Qualifications are now required to indicate the total qualification time (TQT), this is to show the typical time it will take someone to attain the required skills and knowledge to meet the qualification criteria, this qualification has a TQT of 220 hours. Qualifications are also required to indicate the number of hours of teaching someone would normally need to receive in order to pass the qualification. These are referred to as Guided Learning Hours (GLH). The GLH for this qualification is 114.

Unit ref	Mandatory Units	Level	Credits
T/600/8285	Know how to Promote and Maintain Health and Safety in the Glass and Glass Related Working Environment	3	6
GRO1			
K/600/8302	Know how to Contribute to Improving the Effectiveness of the Glass Related Organisation	3	5
GRO2			
T/600/8318	Know how to Receive, Handle, Position and Store Glass and Glass Related Products and Materials	2	4
GRO3			
R/600/8326	Know how to Monitor and Check Quality against Glass Related Specifications	3	4
GRO4			
Optional units (a minimum of 3 credits must be achieved)			
K/600/7960	Knowledge of the Glass Container Manufacturing Process	3	13
GCM2			
L/600/8454	Know how to Set-Up and Monitor Equipment in a Glass or Glass Related Environment	3	5
GRO18			
L/600/7451	Understanding Automotive Glazing Products	3	5
AG15			
K/600/8445	Understanding the Building regulations in the Fenestration Industry	3	3
FIS1			
F/600/8449	Knowledge of Glass Cutting With a range of Glass Types	3	4
GR016			
D/600/8460	Know how to Produce Specifications for Windows and Doors, or Conservatories and Evaluate their Effectiveness	3	6
GRO17			
Y/600/6660	Knowledge of Curtain Walling Systems	2	3
CW5			
Apprenticeship Pathway (3 credits to be achieved for those undertaking this qualification as part of a Proskills Apprenticeship)			
F/602/3940	Employment rights and responsibilities in the processing and manufacturing industries	2	3
ERR1			

Assessment guidance

Evidence should show that you can complete all of the learning outcomes for each unit being taken.

Types of evidence:

Evidence of performance and knowledge is required. Evidence of performance should be demonstrated by activities and outcomes, and should be generated in the workplace only, unless indicated under potential sources of evidence (see below). Evidence of knowledge can be demonstrated through performance or by responding to questions.

Quantity of evidence:

Evidence should show that you can meet the requirements of the units in a way that demonstrates that the standards can be achieved consistently over an appropriate period of time.

Potential sources of evidence:

The main source of evidence for each unit will be observation of the candidate's performance and knowledge demonstrated during the completion of the unit. This can be supplemented by the following types of physical or documentary evidence:

- Accident book/reporting systems
- Safety records
- Training records
- Audio records
- Job specifications and documentation
- Delivery Records
- Witness testimonies
- Correspondence with customers
- Notes and memos
- Photo/video evidence
- Work diaries
- Timesheets
- Telephone Logs
- Meeting records
- Records of toolbox talks
- Equipment
- Prepared materials and sites
- Completed work

Please Note that photocopied or downloaded documents such as manufacturers' or industry guidance, H&S policies, Risk Assessments etc, are not normally acceptable evidence for GQA qualifications unless accompanied by a record of a professional discussion or Assessor statement confirming candidate knowledge of the subject. If you are in any doubt about the validity of evidence, please contact your GQA EQA.

GQA Qualification Implementation Requirements covering Centre Approval, Candidate Assessment and ongoing Quality Assurance

This document indicates the requirements of Approved Centres delivering GQA qualifications and / or units of credit.

1. Equality of Opportunity

Equality of access to fair and valid assessment is necessary for all candidates undergoing assessment. This may mean making reasonable adjustments to normal assessment methods for candidates with particular or special assessment requirements. Candidates work patterns should not become a barrier to assessment, the organisation of which may have to be flexible. In the same way, reasonable adjustment arrangements may be necessary for candidates with a disability. For example, a candidate who is unable, through disability, to produce oral or written evidence, may be allowed to use the method they normally use as a substitute for the required form of communication. Reasonable adjustments need to be approved by GQA.

2. Recognised/Approved Assessment Centres

2.1 Individual centres must be approved by GQA to offer specific qualifications and / or units of credit. A centre may be a single organisation or a partnership of two or more organisations. It may operate at a single location or have satellites. For further details see the GQA booklet "Guide to Centre Approval". The Centre Approval process is carried out by a GQA approved EQA. Each Centre must maintain a centre file. It is important to be clear what the steps in the assessment process are:

- plan evidence collection and opportunities for assessment
- collect evidence
- judge evidence
- determine whether sufficient evidence has been presented
- make an assessment decision and give feedback to the candidate

NB Any deviation from the norm must be approved by a GQA EQA

2.2 Assessors and Verifiers

All Assessors of candidate performance must be competent, to make qualitative judgements, both in the skills they are assessing and in the assessment of candidates and hold the appropriate Assessor national award. Assessor occupational knowledge related to the qualifications being assessed is essential and must be illustrated to GQA prior to approval.

Internal Verifiers are responsible for the quality assurance of the assessment process within a centre. They should have a relevant occupational background, be competent in internal verification and hold the Internal Verifier national award. It is recommended that Internal Verifiers work towards national recognition of assessor competence.

EQAs are responsible for ensuring accurate and consistent standards of assessment across centres, qualifications, units of credit and over time. They should have a relevant occupational background, be competent in external verification and hold the EQA national award

GQA will approve and licence all individuals involved in the assessment and verification of its approved qualifications and / or units of credit. Individuals who are working towards the Assessor or Internal Verifier national awards can only be provisionally licensed. The judgement of provisional licence holders will need to be agreed/authorised by a fully qualified and GQA licensed individual who cannot carry out a dual role in relation to a specific candidate.

All GQA Assessors and Verifiers must undertake a minimum of 2 significant CPD activities in both occupational areas and assessment and verification. Reflective CPD records must be maintained and made available to GQA EV's for review.

2.3 Centre Approval, Monitoring Reviews and Quality Assurance

The centre recognition/approval process is the start of a significant part of the awarding body's quality assurance system. The Approval process will begin with an EQA review of centre procedures to ascertain the potential centres ability to deliver GQA qualifications and / or units of credit. Centres will be expected to meet the relevant regulatory authority criteria for delivery of qualifications prior to initial approval; continued compliance with the criteria will be monitored through regular EQA visits. It is recommended that centre reviews are conducted at minimum every six months by a GQA EQA.

New or multi-site centres may be required to undertake quarterly or more frequent EV reviews to ensure that different locations can be seen to satisfy the national requirements.

GQA will ensure that unacceptable barriers relating to the assessment and internal verification of candidates in small companies do not deny recognition of competence to competent young workers. In such circumstances, GQA will demonstrate that its quality assurance procedures remain sufficient and rigorous to ensure that the competence outcomes have standing and credibility in the occupational area.

Enhanced quality procedures to ensure consistency of assessment and verification will be necessary and will include:

- a high level of sampling of assessment decisions N.B. In some instances the EQA may visit each assessment location and qualification / unit of credit candidate (e.g. single candidates dispersed throughout different small companies on government funded programmes)
- an in-depth scrutiny of assessment plans, materials and records
- specific centre guidance aimed at the successful implementation of qualifications and / or units of credit in SMEs via approved centre partnerships. This can include guidance on the quantity and quality of valid, authentic, and transferable evidence expected to be attributed to individual candidates
- ensuring centres are following the requirements prescribed in any appropriate assessment strategies and applicable codes of practice
- the identification and publication of good practice in centres

As part of the Quality Assurance process Proskills require an Enhanced External Verification process. This will be in the form of 1 significant underpinning knowledge question answered by the candidate for each unit of the qualification. The questions will be decided by GQA, and guideline answers must be submitted for approval and once approved kept in the Centre File to allow independent assessment

3. Qualification / Unit of Credit Candidates

All candidates must register with a GQA recognised/approved centre. The centre must maintain appropriate candidate personal details for external audit purposes etc.

The centre will provide candidates with advice and guidance on how to prepare for assessment and allocate an Assessor who will assess candidate ability to meet the requirements of the relevant qualifications / unit of credit. It is the candidate's responsibility to demonstrate competence and to do this they must:

- prove they can consistently meet all the qualification and / or unit of credit criteria
- provide evidence from work, that they can perform competently in all the contexts specified in the qualification / unit of credit requirements
- prove that they have the knowledge and understanding required to perform competently, even where they have not provided evidence from the workplace

It is therefore critical that quality evidence is provided in a format to allow the Assessor to make a decision and for the Internal Verifier to audit/verify his/her decision.

4. Evidence

A qualification and / or credit is awarded when a person has achieved the necessary outcomes of the qualification and / or unit of credit.

The specific combination of units necessary to achieve a qualification is detailed in the qualification structure. Certificates of Unit Credit can be awarded when candidates achieve any one, or more, units from the qualification.

The evidence the candidate brings forward is primarily evidence of performance of what he/she can do, not just what he/she knows. The assessment criteria / qualification requirements are described within the qualification and / or unit of credit itself and can incorporate practical skills and knowledge.

The assessor's role is to judge each relevant item of evidence. Each must be judged against the qualification and / or unit of credit requirements. It is not sensible to collect evidence against individual criteria. Nor is it effective. If items of evidence were collected for each of the criteria, the candidate may have to produce many items of evidence, well above the number actually required. GQA recommend holistic assessment.

When judging each item of evidence, the assessor is deciding whether the evidence:

- is authentic – i.e. actually produced by the candidate
- meets the criteria
- relates as appropriate to a context defined within the qualification and / or unit of credit
- confirms that the candidate has the required underpinning knowledge

When the assessor makes a decision about the candidate's competence, he or she examines all the evidence available to determine:

- if the evidence, as a whole, covers all the evidence of achievement
- whether the evidence indicates consistency in competent performance
- whether there is enough evidence on which to base an inference of competence

The answer can only be:

- yes (the candidate is competent)
- no (the candidate is not yet competent)
- there is insufficient evidence to make a decision

Consistency means that the individual is likely to achieve the standard in their work role, in the different activities defined in the qualification and / or unit of credit over time and range of work. The assessor must judge how long a time period is enough to be confident that the candidate can perform reliably to the standard. Unsupported evidence i.e. based on a single assessment/visit will not normally prove consistency.

Performance evidence

Performance evidence can be what the individual actually produces, or the way the individual achieves the standard. One is called product evidence and the other process evidence.

Product evidence is tangible – you can look at it and feel it. Products can be inspected and the candidate can be asked questions about them.

In order to make a fair and objective assessment, the assessor must be able to answer the question: Is there sufficient evidence that the candidate can consistently meet the requirements of the qualification and / or unit of credit?

Process evidence describes the way the candidate has achieved an outcome – how they went about it. This may be, for example, the way the quality of products is checked or the way customer complaints are handled. This usually means observing the candidate in action.

Performance evidence may cover a number of outcomes. It makes sense to plan evidence collection so that what the candidate does, in the normal course of their job, can be related to different outcomes and units. The activities that clearly link to the qualification and / or unit of credit requirements are the things to concentrate on when planning evidence collection and assessment and when monitoring the candidate's progress. Look for opportunities in the candidate's job when evidence can be collected against a number of units at the same time.

Performance evidence can be:

- Naturally occurring – evidence produced in the normal course of work. Evidence of this sort is usually of high quality and reliable. It is also cost effective to collect naturally occurring evidence
- Taken from previous achievements – the candidate may be able to bring forward evidence from previous work experience to show that they are still competent to the standard.
- Evidence of prior achievement can be used when it can be shown to support a judgment that the candidate can still achieve the standard. So, the assessor must be satisfied that the evidence of prior achievement is sufficiently reliable to justify saying that the candidate is currently competent.
- Simulated – from circumstances specially designed to enable the candidate's performance to be assessed. Simulation is generally not acceptable. The exceptions to this are:

- o Dealing with emergencies
- o Dealing with accidents
- o Certain pre-approved real time simulators
- o Limited other procedures that cannot be practically performed in the workplace, and for which sufficient evidence can be collected through other means.

NB: It is not always possible or feasible to collect naturally occurring evidence. It is likely that some simulation may be needed, when it may take too long to wait for the evidence to arise e.g. it may be an aspect of performance which occurs infrequently. An example of this may be evidence of how to deal with emergencies i.e. it makes sense to look for evidence from sources other than naturally occurring ones, rather than for, say, waiting for the building to burn down. Centres must obtain GQA EQA approval prior to the use of simulation.

Knowledge evidence

Being able to achieve a standard requires the ability to put knowledge to work. The qualification and / or unit of credit indicates the knowledge each person should use if they are to perform competently.

It should not be necessary to test all of the candidate's knowledge separately; however, any exception to this would be detailed in the relevant Assessment Strategy. Performance evidence could show that the candidate knows what he or she is doing. When this is not the case, or if the assessor is not convinced from the performance evidence, it may be necessary to check the individual's knowledge separately.

Oral or written assessments must clearly provide a suitable means of checking the breadth and depth of an individual's knowledge. Assessors will need to judge the best mix of knowledge evidence according to individual circumstances. Knowledge evidence is useful when deciding the quality of performance evidence, but must not be used in isolation to judge competence or as an alternative to performance evidence. Care must be taken that candidate evidence is auditable and verifiable.

NB: These Qualification implementation guidelines are generic across the full range of GQA qualifications. Further guidance on acceptable evidence on each qualification will be found in the Introduction to the Qualification section of the candidate booklet

Collation of Evidence for Level 3 Qualifications

The definition of a Level 3 NVQ/SVQ is that competence in a broad range of varied work activities is performed in a wide variety of contexts, most of which are complex and non-routine. There is considerable responsibility and autonomy, and control or guidance of others is often required.

By the very nature of this, it is anticipated that Level 3 candidates will be able to provide evidence of their achievement drawn from successful work activities or projects, in other words, real examples of their work over time and range. All evidence should be dated, signed and authenticated/authorised by a recognised responsible person.

The following comments will help in the planning of evidence collection for Level 3 qualifications:

- Level 3 assessments are not normally carried out by the use of checklists
- Level 3 candidates are encouraged to provide evidence of their achievements drawn from their actual current work activities
- In many cases, evidence of achievement is not difficult to find
- Level 3 candidates should produce a CV that clearly indicates their relevant experience and achievement that contribute to the qualification
- A collation of evidence in the form of a Level 3 portfolio may be used to demonstrate competence against the standard
- The evidence must be cross referenced against the NVQ/SVQ standard (and where necessary justified)
- It may be appropriate for Level 3 candidates to undertake the related Level 2 qualification or some Level 2 units as a milestone/interim qualification
- Level 3 qualifications may include units of competence from Level 2 qualifications. If the candidate has already achieved any unit(s) and is regarded as currently competent then he/she will not be required to be reassessed on the same unit(s)
- Assessors will need to carry out performance and knowledge assessments for units/elements/pcs etc but the need for ongoing formal observations should not be as great if the candidate has produced a quality portfolio.

Some aspects of evidence may be subjected to independent assessment or enhanced external verification to satisfy the requirements of the standards setting body's assessment strategy

Candidate Declaration

Candidate Name.....

Centre/Company Name.....

Assessor(s) Name(s).....

I acknowledge receipt of this copy of GQA qualification booklet. The unit structure provides information on which units must be achieved to be awarded the qualification. The individual units detail in the necessary requirements etc that I must achieve.

I understand that I will have an important role in preparing for and planning assessments and with guidance from the Assessor I will Collect and record relevant evidence.

I have been informed of the appeals system, should I want to appeal against any part of the assessment process.

I understand the assessments will be carried out with regard to the company's/centre's Equal Opportunities Policy.

Candidate signature.....

Date.....

T/600/8285	Know how to Promote and Maintain Health and Safety in the Glass and Glass Related Working Environment	Level 3	6 Credits
GRO1			

The aim of this unit is to provide the learner with the knowledge and skills to be able to promote and maintain Health and Safety and keep knowledge of related matters current, including accident procedures. The learner is also required to understand how to implement and monitor changes to Health and Safety related information and evaluate related information.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know which, acts, regulations and guidelines apply to the glass related working environment and where this information can be obtained.	1.1 State which acts, regulations and guidelines apply to the candidate's glass related working environment			
	1.2 Explain how these acts, regulations and guidelines apply to the candidate's glass related working environment			
	1.3 Explain where the information can be obtained			
2. Know how to obtain information and keep aware of changes in health and safety acts, regulations and guidelines that apply to the glass related working environment.	2.1 Explain why it is important to obtain details of changes to Health and Safety related information related in the glass related working environment. Give 3 reasons.			
	2.2 Explain 3 ways to obtain information on changes in Health and Safety acts, regulations and guidelines			
	2.3 Describe 3 ways of obtaining explanations of Health and Safety updates or information			
3. Know how to implement and monitor changes in Health and Safety practices of others to comply with legislation, regulations and organisational guidelines.	3.1 Explain how to introduce and implement changes in Health and Safety practices of others			
	3.2 Explain how to monitor the implementation of changes in Health and Safety working practices of others in the glass related working environment			
4. Know how to evaluate the effect of changes introduced to Health and Safety practices in the glass related working environment.	4.1 Explain how to evaluate the effect of changes introduced in Health and Safety practices of others			
	4.2 Describe 3 benefits of evaluating this type of information			
5. Know how to carry out a formal assessment of hazards and risks in the glass related working environment	5.1 Describe the steps in carrying out a formal risk assessment.			

Assessor comments/feedback

T/600/8285	Know how to Promote and Maintain Health and Safety in the Glass and Glass Related Working Environment (continued)	Level 3	6 Credits
GRO1			

6. Know how to evaluate the risks from potential hazards that can be found in the glass related working environment.	6.1 Explain how to evaluate the risks from potential hazards that can be found in the glass related working environment.			
7. Know how to adopt and promote safe working practices.	7.1 Explain how to find and follow employer's and manufacturer's instructions on the safe use of equipment and materials.			
	7.2 Explain how to correctly select and use personal protective equipment and materials required to carry out the work			
	7.3 Give 3 examples of ways that safe working procedures can be promoted to others in the glass related working environment			
8. Know how to ensure there is no unauthorised or unsafe access to the working areas and why this is important.	8.1 Explain how to establish if a person is authorised to enter the work area.			
	8.2 Explain how to ensure that authorised people entering the work area are kept safe.			
	8.3 Give 3 reasons that unauthorised or unsafe access to the work area should be prevented			
9. Know what to do in the event of an emergency and how to evaluate the effectiveness of evacuation procedures	9.1 Describe the correct procedure to follow in the case of an emergency or drill that requires evacuation.			
	9.2 Explain how to evaluate the effectiveness of evacuation procedures following an emergency or drill.			
10. Know why it is important to clearly and accurately report and record information on accidents and incidents	10.1 Explain why it is important to clearly and accurately report and record information on accidents, emergencies and other Health and safety related incidents.			
11. Know how to investigate accidents to identify the cause and why this is important	11.1 Explain how to investigate and identify the cause of an accident.			
	11.2 Give 3 benefits from carrying out investigations into the causes of accidents.			

Assessor comments/feedback

K/600/8302	Know how to Contribute to Improving the Effectiveness of the Glass Related Organisation	Level 3	5 Credits
GRO2			

The aim of this unit is to provide the learner with the required level of knowledge to be able to contribute to the range of activities that the organisation carry out and ensure work is conducted out in a manner that will help the organisation run efficiently.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to identify and confirm the specifications for the work to be done.	1.1 Explain how to identify and confirm the specifications for the work to be done.			
2. Know how to identify and confirm the type, quantity and quality of the products and materials required for the work to be done.	2.1 Explain how to identify the correct type, quantity and quality of materials required for the work to be done.			
3. Know how to identify and confirm the availability of the correct equipment for the work to be done.	3.1 Explain how to identify and confirm the availability of the correct equipment for the work to be done.			
4. Know why it is important to confirm that products, materials and equipment are available.	4.1 Explain why it is important, in regard to effective work practice, to confirm that products, materials, manpower and equipment are available before work commences.			
5. Know how to minimise wastage of materials.	5.1 List three types of material that can potentially be wasted.			
	5.2 Describe what actions can be taken to minimise wastage of the materials listed.			
6. Know how to carry out an investigation on the minimising of waste.	6.1 Explain how to carry out an investigation on the minimising of waste.			
	6.2 State 3 areas of the glass related organisation that have the potential to cause waste.			
	6.3 Suggest a way to minimise waste in the 3 examples given.			
7. Know how to obtain information and guidance on glass related operations.	7.1. List three sources of information on glass related operations.			
	7.2. List two sources of guidance on glass related operations.			
	7.3. Explain how to obtain information and guidance.			
8. Know the purpose of having records and procedures.	8.1 List three purposes of having records.			
	8.2 List three benefits of having procedures.			
9. Know the importance of clarity and accuracy of records and procedures.	9.1 Explain the importance of clarity and accuracy of records.			
	9.2 Explain the importance of clarity and accuracy of procedures.			

Assessor comments/feedback

K/600/8302	Know how to Contribute to Improving the Effectiveness of the Glass Related Organisation (continued)	Level 3	5 Credits
GRO2			

10. Know what information to share with colleagues and why this is important.	10.1 Explain why sharing information with colleagues is important.			
	10.2 Describe 3 types of information which needs to be shared with colleagues.			
11. Know how to share information with colleagues and how to overcome problems in communications	11.1 List 4 ways of sharing information with colleagues.			
	11.2 Describe a situation when each of the ways of sharing information would be most suitable and why.			
	11.3 Explain 3 problems in sharing information with colleagues and how to overcome them.			
12. Know why it is important to respond promptly to requests from colleagues.	12.1 Give 3 reasons why it is important to respond promptly to requests from colleagues			
	12.2 Give 3 examples of problems that could be caused by not responding promptly to requests			
13. Know how to respond promptly to requests from colleagues.	13.1 Explain how to promptly respond to requests from colleagues to include the provision of: <ul style="list-style-type: none"> • Information • Physical assistance • Advice 			
14. Know why good working relationships with colleagues are important	14.1 State 3 benefits of having good working relationships with colleagues			
15. Know how to develop and maintain good working relationships with colleagues.	15.1 Explain how to develop and maintain good working relationships with colleagues.			
	15.2 Explain how to overcome problems in developing and maintaining good working relationships with colleagues.			
16. Know who customers are	16.1 Explain the difference between internal and external customers			
17. Know why it is important to have good relationships with customers	17.1 Explain 3 benefits of having good relationships with customers.			
18. Know how to develop and maintain good relationships with customers	18.1 Explain how to develop and maintain good relationships with customers			
19. Know the type of problems that can occur in relationships with customers and how these can be overcome	19.1 Describe 3 problems that can occur in relationships with customers			
	19.2 Explain a potential way to overcome each of the problems described above.			
20. Know why it is important to contribute to improving the effectiveness of the glass or glass related organisation.	20.1 Explain 3 reasons for contributing to improving the effectiveness of the glass or glass related organisation.			

Assessor comments/feedback

T/600/8318	Know how to Receive, Handle, Position and Store Glass and Glass Related Products and Materials	Level 2	4 Credits
GRO3			

This unit focuses on the knowledge of how to receive handle, position and storage of glass related products and materials. The learner has to understand specifications and how to confirm the products and materials are correct and fit for purpose. Knowledge of handling techniques, equipment and Personal Protective Equipment is also required.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to confirm that products and materials meet specifications on type, quality and quantity	1.1 Explain how to identify and confirm that products and materials meet specification on type, quality and quantity			
	1.2 Explain identification markings of materials and components.			
	1.3 Explain how to locate products and materials.			
	1.4 Explain how to check that products and materials match their markings and specifications.			
	1.5 Explain how to select the correct type, quality and quantity of products and materials.			
2. Know how to handle products and materials correctly.	2.1 Explain the handling equipment and techniques used in the glass related operation.			
	2.2 Explain how to handle 3 different products used in the glass related organisation safely including: <ul style="list-style-type: none"> • Correct handling equipment • Correct manual handling techniques • Personal protective equipment 			
	2.3 Describe the type of damage that can occur during the handling of products and materials and explain how to avoid this.			
3. Know how to position materials and components correctly.	3.1 Describe difficulties and hazards in positioning materials and components.			
	3.2 Describe methods of overcoming difficulties and hazards in positioning materials, including: <ul style="list-style-type: none"> • Handling equipment (give two examples) • Handling methods • Planning • Personal protective equipment 			
4. Know how to overcome problems in the location, handling and positioning of products and materials.	4.1 Describe 3 problems that can occur in the location, handling and positioning of products and materials			
	4.2 Give a potential solution to each of the problems described.			
5. Know how to store products and materials	5.1 Describe the storage requirements of 3 different glass related products and materials.			
	5.2 Describe three types of problem in storing products and materials and explain how these might be overcome.			
6. Know how to record information correctly.	6.1 Explain the organisations requirements for recording information on the location, handling, positioning and storage of glass related products and materials.			

Assessor comments/feedback

R/600/8326	Know How to Monitor and Check Quality Against Glass	Level 3	4 Credits
GRO4	Related Specifications		

This unit is focused on the knowledge of how to monitor and check the quality of products against the required specifications. Knowledge of the equipment used and how to ensure the equipment is functioning correctly are also requirements of this unit.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to obtain and confirm the correct quality specifications.	1.1 Explain how to obtain and confirm the correct quality specifications.			
2. Know how to interpret the quality specifications to identify the correct measuring equipment.	2.1 Explain how to interpret quality specifications and correctly identify the measuring equipment required.			
3. Know how to ensure that quality checking equipment is calibrated and functioning correctly.	3.1 Explain how to ensure that quality checking equipment is calibrated and functioning correctly and why this is important.			
4. Know what action to take if quality checking instruments are not fit for purpose.	4.1 Describe possible actions to take if quality checking instruments are not fit for purpose.			
5. Know how to conduct a quality check.	5.1 Explain how to interpret a specification to identify quality requirements.			
	5.2 Describe the types of measuring equipment used in the organisation and the purpose of each piece of equipment.			
	5.3 Explain how to ensure measuring equipment is functioning correctly.			
	5.4 Explain how to carry out a quality check.			
6. Know the importance of accuracy when conducting a quality check.	6.1 Explain the importance of accuracy when conducting a quality check and the implications if accuracy is not achieved and maintained.			
7. Know how to establish how often quality should be checked.	7.1 Explain how to establish how often quality checks need to be conducted.			

Assessor comments/feedback

R/600/8326	Know How to Monitor and Check Quality Against Glass Related Specifications (continued)	Level 3	4 Credits
GRO4			

8. Know the products that need to be checked for quality and how the checks need to be conducted.	8.1 List six typical glass / glass related products and explain how these need to be checked for quality.			
9. Know what action to take if specified quality is not met.	9.1 Explain what action to take if specified quality is not met, e.g. <ul style="list-style-type: none"> • who should be informed • what should be recorded 			
10. Know how to evaluate products not meeting quality specification, for suitability for salvage.	10.1 Explain how to evaluate if products not meeting quality specifications can be salvaged.			
11. Know what quality assurance records are kept.	11.1 Describe the quality assurance records that are kept.			
12. Know the type of problems that can occur in the monitoring and checking of quality and how these problems might be overcome.	12.1 Describe three problems that can occur in the monitoring and checking of quality and explain how these might be overcome.			
13. Know how to correctly complete inspection records.	13.1 Explain how to correctly complete inspection records.			

Assessor comments/feedback

K/600/7960	Knowledge of the Glass Container Manufacturing Process	Level 3	13
GCM2			Credits

The aim of this unit is to provide the learner with knowledge of the Glass Container Manufacturing process, from raw material to packaged product.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the constituent components of the raw materials or “batch”.	1.1 Describe the composition of the batch mix required to produce white (flint) amber (brown) and green glass.			
	1.2 Describe the properties of the constituent components that make up each different batch mix.			
	1.3 Describe the benefits of utilising recycled glass in the batch mix.			
2. Know the major components of a batch plant.	2.1 Describe the composite parts that make up a typical batch plant.			
	2.2 Describe the systems and procedures necessary to prevent batch contamination			
3. Know how a furnace converts the batch mix into molten glass and recognise environmental impact.	3.1 Describe the various parts of the furnace			
	3.2 Describe the batch melting process			
	3.3 Explain how to monitor the key performance indicators for the furnace			
4. Know the purpose of the fore-hearth and feeder in the glass manufacturing process.	4.1 Describe the purpose of the fore-hearth			
	4.2 Describe the purpose of the feeder			
	4.3 Describe what adjustments are possible in the feeder and plunger to produce gobs to specification. Give 3 examples.			
5. Know the major components in the gob delivery system from when the glass is extruded from the feeder.	5.1 Describe a typical glass delivery system.			
	5.2 Describe typical coatings that are applied to delivery equipment			
6. Know the problems associated with the gob delivery system.	6.1 Describe 3 problems that can originate from the delivery system, and offer a solution for each of the problems given			
7. Know the different processes used to manufacture containers	7.1 Describe the Press & Blow system of glass manufacture.			
	7.2 Describe the Narrow Neck Press & Blow system of glass manufacture			
	7.3 Describe the Blow & Blow system of glass manufacture.			
8. Know the process of transferring formed containers into the annealing stage including any inspection or treatment and the types of problems that can occur	8.1 Describe the transfer operations from the dead plate to the annealing lehr.			
	8.2 Give 3 problems that can occur at each stage and offer a potential solution for each.			
9. Know the principles of annealing glass	9.1 Describe the annealing process			
	9.2 Explain why it is necessary to anneal formed glass containers.			
	9.3 State typical temperatures at the start and end of the annealing process			
10. Know the importance of applying and monitoring hot and cold end coatings.	10.1 Explain how hot and cold end coating is applied to the container and why.			
	10.2 Explain the checks required to ensure the coatings are effective.			

K/600/7960	Knowledge of the Glass Container Manufacturing Process (continued)	Level 3	13 Credits
GCM2			

11. Know the processes carried out at the Cold End Operation and their purpose	11.1 Describe the cold end operations			
	11.2 Describe the purpose of cold end operations			
	11.3 Describe the types of inspection that take place. Give 3 examples of each of the following:			
	11.4 Describe auditing procedures for two different types of cold end inspection equipment.			
12. Know the container packaging process	12.1 Describe a typical glass palletiser.			
	12.2 Describe the differences that can occur between packaging specifications.			
	12.3 Describe the methods used to package glass containers			
	12.4 Describe a typical shrink system and/or band strapper.			
	12.5 Describe 3 problems that can occur in transporting packaged glass containers and offer a potential solution for each.			

Assessor comments/feedback

L/600/8454	Know how to Set-Up and Monitor Equipment in a Glass or Glass Related Environment	Level 3	5 Credits
GR018			

The aim of this unit is to provide the candidate with the required level of skills and knowledge to set up and adjust equipment to carry out operations in a glass or glass related working environment, be able to monitor the effectiveness of equipment and make recommendations for improvement.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the types of equipment used in the organisation to fabricate glass supporting systems.	1.1 List the equipment used in the organisation to fabricate glass supporting systems.			
	1.2 Explain the purpose of each type of equipment listed above.			
2. Know how to prepare for setting up equipment for operations.	2.1. Explain how to obtain and confirm schedules, specifications and manufacturer's instructions for operations.			
	2.2. Give 3 reasons why it is important to follow organisational and manufacturer's guidelines on the set up of equipment.			
3. Know how to determine the correct settings for the equipment and why this is important.	3.1 Explain how to determine the correct settings required to carry out the work to comply with the job specification.			
	3.2 Explain why it is important to determine the correct settings.			
4. Know the types of adjustment that can be made to equipment and when it should be made.	4.1 Explain 3 adjustments that can be made to equipment.			
	4.2 Explain how to make the adjustments described.			
	4.3 Explain why adjustments may be necessary and when they should be.			
	4.4 Explain how to evaluate the effectiveness of adjustments made.			
5. Know how to monitor the equipment used.	5.1 Explain how to monitor 3 different pieces of equipment to ensure operational efficiency.			
	5.2 Describe 3 variations that could occur when monitoring equipment.			
6. Know how to evaluate the operational efficiency of the equipment.	6.1 Explain how to evaluate the operational efficiency of the equipment.			
	6.2 Explain 3 benefits of evaluating the operational efficiency of equipment.			

Assessor comments/feedback

L/600/8454	Know how to Set-Up and Monitor Equipment in a Glass or Glass Related Environment (continued)	Level 3	5 Credits
GR018			

7. Know how to investigate for the cause of variation in the product following the use of equipment.	7.1 Explain how to carry out an investigation of the causes of variation.			
	7.2 Explain who to inform of the outcome of the investigation and why they need to be informed.			
	7.3 Explain how to inform the necessary people and why this important.			
8. Know when and how to obtain outside assistance to help identify or rectify problems with equipment.	8.1 Explain at what stage to obtain outside assistance and what implications this could have for the organisation and customer.			
	8.2 Explain how and where to obtain outside assistance			
9. Know how to evaluate the effectiveness of outside assistance in the identification of and rectification of equipment.	9.1 Explain how to evaluate the effectiveness of outside assistance			
	9.2 Explain how the organisation could reduce the need for outside assistance and give 3 reasons why this may be beneficial.			
	9.3 Explain how to evaluate if the initiatives introduced to reduce the need for outside assistance have been effective.			

Assessor comments/feedback

L/600/7451	Understanding Automotive Glazing Products	Level 3	5 Credits
AG15			

The aim of this unit is to provide the learner with the knowledge and understanding of automotive glazing products, for example, laminated glass, toughened glass, PVB interlayers, tinted glass, light and rain sensors, integrated antennas, membranes, hydrophobic coatings. The learner will be able to list the products and describe the features of each.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the difference in construction between laminated and toughened glass and how they behave on impact and how the different types of glass can be processed after manufacture.	1.1 Explain the typical make up of laminated glass.			
	1.2 Explain how toughened glass is manufactured.			
	1.3 Describe how laminated glass normally behaves on impact and what protection this gives.			
	1.4 Describe how toughened glass normally behaves on impact and what protection this gives.			
	1.5 Describe what processes can be carried out on laminated glass after manufacture.			
	1.6 Describe what processes can be carried out on toughened glass after manufacture.			
2. Know why the use of laminated glass in side and rear windows is minimal.	2.1 Explain why the use of laminated glass in side and rear windows is minimal.			
3. Know the properties of Polyvinyl Butyral (PVB) interlayers used in automotive glass manufacture.	3.1 Describe the properties of Polyvinyl Butyral (PVB) interlayers used in automotive glass manufacture.			
	3.2 Explain where the different thicknesses of PVB should be used.			
	3.3 Explain how the PVB interlayer differs from the norm on a windscreen with head up display.			
4. Know what a direct glazing system is and what its properties are.	4.1 Describe what a direct glazing system is.			
	4.2 Describe the effects of weather conditions on a direct glazing system.			
	4.3 Describe how to correctly use a direct glazing system.			
	4.4 Explain why it is important to use a direct glazing system correctly.			
5. Know the terminology for different types of windscreens and their properties.	5.1 Explain the meaning and make up of at least 2 of the following <ul style="list-style-type: none"> • Acoustic glazing • Electrochromic glazing • Anti bandit glazing • Anti reflective glazing 			
6. Know the possible implications of installing an after market sunroof.	6.1 Describe the possible implications of installing an after market sunroof.			
7. Know the range of glass tints available, how to identify them and what problems can occur.	7.1 List at least four different glass tints.			
	7.2 Explain how to identify glass tints.			
	7.3 Describe the problems that can arise if the incorrect tint is fitted			
8. Know how solar control glass is constructed, what its uses are and how it works.	8.1 Explain how solar control glass is constructed.			
	8.2 Describe what solar control glass is used for. Give three purposes			
	8.3 Explain how solar control glass works.			

L/600/7451	Understanding Automotive Glazing Products (continued)	Level 3	5 Credits
AG15			

9. Know the purpose and meanings of glass marking.	9.1 Explain the purpose of glass marking.			
	9.2 Explain the meaning of glass marking symbols. Give four examples.			
10. Know the properties of heated rear and front windscreens.	10.1 Describe the properties of heated rear and front windscreens.			
11. Know why it is important to be aware of airbags, how to identify their presence and what precautions need to be taken when working near them.	11.1 Explain why it is important to be aware of airbags.			
	11.2 Explain how to identify the presence of airbags.			
	11.3 Describe the precautions that need to be taken when working near airbags.			
12. Know how rain sensors work for automatic wiper activation, how to check them, the types of problem that can occur and how to overcome them.	12.1 Explain how rain sensors work for automatic wiper activation.			
	12.2 Explain how to check rain sensors.			
	12.3 Describe two types of problem that can occur with rain sensors and explain how these might be overcome.			
13. Know how light sensors work, how to check them, the types of problem that can occur and how to overcome these.	13.1 Explain how light sensors work.			
	13.2 Explain how to check light sensors.			
	13.3 Describe two types of problem that can occur with light sensors and explain how these might be overcome.			
14. Know the types of resins and urethanes used in automotive glazing and what their uses are.	14.1 Describe the purpose of resin in automotive glazing repairs.			
	14.2 Give three examples of urethanes used in automotive glazing and describe their uses.			
	14.3 Explain the meanings of direct and indirect glazing			
	14.4 List the 2 most common types of rubber fitments used in indirect glazing			
15. Know the types of tools and equipment used in automotive glazing at what they are used for.	15.1 List six different types of tool or pieces of equipment used in automotive glazing and describe their uses.			
16. Know what integrated antennas are used for in automotive glazing, reasons Vehicle Manufacturers use them and what kind of problems they have and how to overcome them.	16.1 List what integrated antennas are used for in automotive glazing, giving three examples of Vehicle Manufacturers who use this technology and 2 reasons they are used in preference to external aerials.			
	16.2 Describe the type of problems that can occur with integrated antennas and explain how these might be overcome.			
17. Know the types of membrane used on the inside of doors, what their purposes are, what problems can occur and how to overcome these problems.	17.1 List three types of membrane used on the inside of doors.			
	17.2 Give an example of a Vehicle Manufacturer who uses each type of membrane listed .			
	17.3 Explain the purpose of the membranes.			
	17.4 Describe three problems with membranes and explain how these might be overcome.			
18. Know how to locate reset procedures for door glasses, how to use the procedures correctly and understand the implications of not following them correctly.	18.1 Explain how to locate reset procedures for door glasses.			
	18.2 Explain how to correctly follow procedures for door glasses.			
	18.3 Describe the implications of not following the procedures correctly.			

L/600/7451	Understanding Automotive Glazing Products (continued)	Level 3	5 Credits
AG15			

19. Know what a hydrophobic coating is and how it may be used.	19.1 Clearly explain what a hydrophobic coating is and describe its uses.			
20. Know the types of material used for temporary glazing, their uses and restrictions.	20.1 List at least three types of materials used for temporary glazing and describe the use and restrictions of each.			
21. Know the construction and properties of different types of automotive glazing	21.1 List at least four types of automotive glazing and describe their properties, e.g. <ul style="list-style-type: none"> • security glazing 			

Assessor comments/feedback

K/600/8445	Understanding the Building Regulations in the Fenestration	Level 3	3 Credits
FIS1	Industry		

The aim of this unit is to provide the learner with the knowledge and understanding of the Building Regulations and how they affect the Fenestration Industry.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Understand why Building Regulations exist, and where they apply.	1.1 Explain the main purpose of the Building Regulations.			
	1.2 Explain which countries the Building Regulations apply to.			
	1.3 State if the building regulations apply to: <ul style="list-style-type: none"> • Replacing the whole of a window frame • Replacing broken glass or fogged double glazing units • Replacing some opening parts in a main window frame 			
2. Know the main parts of Building Regulations that affect the Fenestration Industry.	2.1 Name the 5 main parts of the Building Regulations that affect the Fenestration Industry and which part they affect.			
3. Know who can carry out inspection of work covered by the Building Regulations and who is responsible for ensuring the inspection takes place.	3.1 Identify 2 bodies that can carry out inspection of work covered by Building Regulations and when each should be involved.			
	3.2 Explain how to decide who should arrange the inspection.			
4. Know the implications of a failed inspection.	4.1 Name 4 possible consequences of a failed inspection.			
5. Understand the aims of part L (Conservation of Fuel and Power) of the Building Regulations regarding U value requirements for Fenestration installation.	5.1 Explain the maximum acceptable U value across the whole of a window.			
	5.2 Explain the maximum acceptable U value when a glazed panel within a door is equal to or greater than 50% of the entire door area.			
6. Know the name and range of the UK's national system used for rating the energy efficiency of windows and the minimum energy rating band acceptable in the Building Regulations.	6.1 Identify the name and range of the UK's national system for rating the energy efficiency of windows.			
	6.2 State the minimum energy rating band acceptable in the Building Regulations.			
7. Know the optimum space for heat retention between 2 panes of glass in a double glazed unit.	7.1 State the optimum space for heat retention between 2 panes of glass in a double glazed unit.			
8. Know the types of glazing units other than "traditional" double glazed units that can help meet the requirements of Part L of the Building Regulations and the benefits of the different types.	8.1 Name 2 types of glazing unit other than "traditional" double glazed units that can help meet the requirements of Part L of the Building Regulations.			
	8.2 Describe a benefit of each of the 2 types named.			
9. Know the advantages of using types of glazing that minimise heat loss.	9.1 Give 5 advantages of using types of glazing that minimise heat loss.			
10. Understand what is meant by safety glazing.	10.1 Explain the types of glass used in safety glazing.			

K/600/8445	Understanding the Building Regulations in the Fenestration Industry (continued)	Level 3	3 Credits
FIS1			

11. Understand when safety glazing must be used.	11.1 Define "Critical Safety Area Locations".			
	11.2 Explain when safety glazing must be used regarding: <ul style="list-style-type: none"> • Height from the finished floor level • Side panel distance from either edge of a door • Explain what is meant by "finished floor level" • Which dimension to use if the ground level varies inside and outside • Explain the "finished floor level" in a bathroom area where the window is adjacent to the bath/shower • Explain where the drop on a stairway is measured from 			
12. Know the exceptions to the use of safety glazing and the minimum thickness acceptable for the exceptions.	12.1 Explain exceptions to the use of safety glazing regarding dimensions.			
	12.2 State the minimum thickness for glass in traditional leaded lights and copper lights.			
	12.3 State the minimum thickness for all other exceptions.			
13. Know the requirements for visible glass markings.	13.1 Explain 3 pieces of information that must be clearly and indelibly present on safety glass.			
14. Know the common problems that can occur when taking delivery of glass and how to minimise the impact of these problems.	14.1 List reasons for some common problems that can occur, to include 1 reason for each of the following: <ul style="list-style-type: none"> • Incorrect type of glass being delivered • Incorrect dimensions of glass being delivered • No safety markings on glass • Safety mark not clear 			
	14.2 Explain ways the impact of each point raised above can be minimised.			
15. Know the types of windows and doors that part A (Structure) of the Building Regulations applies to.	15.1 Name the types of windows and doors that part A (Structure) of the Building Regulations applies to.			
16. Understand when Lintels should be used.	16.1 Explain who makes the decision when a Lintel must be fitted and what this decision is based on.			
17. Understand the process to be followed with Bay Window replacement.	17.1 Explain the 3 stages involved in Bay Window replacement.			
	17.2 Explain the types of temporary support to be used and when they should be introduced.			
	17.3 State the surrounding areas that may need support and protection prior to window removal.			
	17.4 Explain the use and positioning of support equipment to protect internal ceiling and floor finishes.			
	17.5 Explain the sequence of removal of the windows in a 2 storey bay and the importance of support of the structure.			
	17.6 Explain the correct and safe way to complete the removal of mullions.			
	17.7 Explain the use of load bearing supports and when and where they should be used.			
	17.8 Explain how to determine the bay window assembly process.			
	17.9 Explain how weather and/or site conditions can determine if the bay is assembled prior to installation or assembled in situ.			
18. Understand when and why to ensure any defects in the structure should be addressed before the installation commences.	18.1 Explain why defects should be addressed before installation commences.			

K/600/8445	Understanding the Building Regulations in the Fenestration	Level 3	3 Credits
FIS1	Industry (continued)		

19. Know what bearing plates are and when they should be used.	19.1 Explain the make up of bearing plates.			
	19.2 Explain the purpose of bearing plates and when and how they should be used.			
	19.3 Give an example of a situation where bearing plates are not required.			
20. Understand the problems that can occur in bay window removal and replacement and how to overcome them.	20.1 Explain 3 problems that can occur when removing bay windows and how to overcome them.			
	20.2 Explain 3 problems that can occur with the installation of bay windows and how to overcome them.			
21. Understand the requirements of Part B (Fire Safety).	21.1 Explain the requirements for windows provided for emergency egress purposes to include: <ul style="list-style-type: none"> • Minimum openable area • Minimum height and width • Maximum height from floor to the bottom of the openable area 			
	21.2 Explain which rooms on the ground floor require egress windows to be installed.			
	21.3 Explain 2 factors that govern if Part B applies to upper floors.			
22. Understand the requirements for purge ventilation.	22.1 Explain 2 purposes of purge ventilation.			
	22.2 Explain the required % of area of opening windows to floor area where the hinged or pivot window opens 30 degrees or more.			
	22.3 Describe the difference when the hinged or pivot window opens less than 30 degrees.			
	22.4 Explain how to measure the area of a sash window.			
23. Understand the requirements for and background ventilation.	23.1 Explain the area of habitable rooms that require trickle ventilation.			
	23.2 Explain the area of kitchens, bathrooms and other wet areas that require trickle ventilation.			
	23.3 Explain acceptable alternatives when installing a replacement window that had a trickle ventilator in the original window.			
	23.4 List 2 options for ventilation to make the customer aware of when no ventilation is provided in the windows removed.			

Assessor comments/feedback

F/600/8449	Knowledge of Glass Cutting With a range of Glass Types	Level 3	4 Credits
GRO16			

The aim of this unit is to provide the learner with the knowledge of glass types, how to cut them and how to investigate and evaluate problems encountered in glass cutting.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the properties of typical types of glass that require cutting ,the processes to be followed and the equipment required.	1.1 Explain the properties of the following types of glass: <ul style="list-style-type: none"> • Laminated • Georgian wired • Float glass • Mirrors 			
	1.2 Explain the process for cutting each of the types of glass, to include: <ul style="list-style-type: none"> • Equipment/tools required • Personal Protective Equipment 			
2. Know how to identify a safe and suitable location for cutting the glass.	2.1 Explain 3 things to consider when choosing a location for cutting the glass.			
3. Know the types of problems that can occur in the cutting of different types of glass and how these problems might be overcome	3.1 Describe one problem that can occur in cutting for 3 different types of glass.			
	3.2 Explain how each problem identified could be overcome.			
4. Know how to ensure the glass is cut to specification, minimising waste.	4.1 Explain how to ensure the glass is to the required specification.			
	4.2 Explain how to minimise waste.			
5. Know how to cut radii into the different types of glass.	5.1 Explain how to cut external radius.			
	5.2 Explain how to cut internal radii.			
6. Know how to cut holes in different types of glass, the types of problems that can occur and how they might be overcome.	6.1 Explain how to cut holes in the following types of glass: <ul style="list-style-type: none"> • Laminated • Georgian wired • Float glass 			
	6.2 Describe a problem that can occur when cutting holes in each type of glass and how the problems might be overcome.			
7. Know how to investigate problems in cutting different types of glass and identify likely causes and solutions.	7.1 Explain how to investigate the problems in cutting different glass types to include a rationale for deciding: <ul style="list-style-type: none"> • when to carry out an investigation • types of glass • types of tools and equipment • number of people to be included in the evaluation • time period investigation is to cover • environmental issues to be considered 			
	7.2 Explain how to identify the likely cause of the problem.			
	7.3 Explain how to identify potential solutions to the problems identified and 3 things to consider when identifying potential solutions.			
8. Know how to record the findings of the investigation and evaluation.	8.1 Explain how to record the information and why recording is important.			
	8.2 Explain who needs to be made aware of the findings and why.			
	8.3 Explain how to give the relevant information to the people requiring it.			

F/600/8449	Knowledge of Glass Cutting With a range of Glass Types	Level 3	4 Credits
GRO16	(continued)		

9. Know how to recommend and monitor improvements to glass cutting practices.	9.1 Describe 3 ways to recommend improvements.			
	9.2 Describe how to monitor the effectiveness of the implemented improvements, to include a rationale for deciding: <ul style="list-style-type: none"> • when to monitor the recommended improvements • types of glass • types of tools and equipment • number of people to be included in the evaluation • time period investigation is to cover • environmental issues to be considered 			
10. Know the problems that can occur when recommending improvements to glass cutting practices.	10.1 Explain 3 problems when recommending improvements to glass cutting practices and a potential solution to each.			

Assessor comments/feedback

D/600/8460	Know how to Produce Specifications for Windows and Doors, or Conservatories and Evaluate their Effectiveness	Level 3	6 Credits
GRO17			

The aim of this unit is to provide the learner with the knowledge to produce specifications for windows, doors or conservatories. This involves graphical information, such as diagrams and sketches generated manually or through the use of computers.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the ways to produce effective and clear specifications	1.1 Explain how to produce a specification that is clear and meaningful and why this is important.			
2. Know the industry regulations affecting fenestration installation specification and where to obtain them.	2.1 State the industry regulations affecting fenestration installation.			
	2.2 State the key points of the industry regulations and how they affect the production of fenestration installation specification.			
	2.3 Explain where to obtain details of the regulation.			
3. Know how to ensure that text-based technical information is accurate, clear, and complete and fit for purpose.	3.1 Explain how to clearly identify the requirements for the text-based technical information, e.g. <ul style="list-style-type: none"> • reports • notes • correspondence 			
	3.2 Describe the correct format for presenting text-based technical information.			
	3.3 Explain how to ensure that the content of the textbased technical information is accurate, clear and complete.			
4. Know how to ensure that graphical technical information is accurate, clear, complete and fit for purpose.	4.1 Explain how to clearly identify the requirements for the graphical technical information, to include: <ul style="list-style-type: none"> • sketches/drawings • cutting list/electronic specifications 			
	4.2 Explain the correct format for presenting graphical technical information.			
	4.3 Explain how to ensure that the content of the graphical technical information is accurate, clear and complete.			
5. Know how to evaluate the effectiveness of specifications produced.	5.1 Explain how to evaluate the effectiveness of specifications produced, to include a rationale for deciding: <ul style="list-style-type: none"> • when to carry out an evaluation • number of specifications to be evaluated • number of Surveyors to be included in the evaluation • time period evaluation to cover • issues to be covered during the evaluation 			
6. Know how to record findings on the evaluations carried out.	6.1 Explain how to record the information and why recording is important.			
	6.2 Explain who needs to be made aware of the findings and why.			
	6.3 Explain how to give the relevant information to the people requiring it			
7. Know how to investigate and identify the possible causes of problems with specifications, and evaluate the findings to identify potential solutions to reduce problems.	7.1 Explain how to investigate the possible causes of problems with specifications.			
	7.2 Explain how to identify the likely cause of the problem.			
	7.3 Explain how to identify potential solutions to the problems identified and 3 things to consider when identifying potential solutions.			

D/600/8460	Know how to Produce Specifications for Windows and Doors, or Conservatories and Evaluate their Effectiveness (continued)	Level 3	6 Credits
GRO17			

8. Know how to recommend and monitor improvements to specification production practices.	8.1 Describe 3 ways to recommend improvements.			
	8.2 Describe how to monitor the effectiveness of the implemented improvements, to include a rationale for deciding: <ul style="list-style-type: none"> • number of specifications to be evaluated • number of Surveyors to be included in the evaluation • time period evaluation to cover • issues to be covered during the evaluation 			
9. Know the problems that can occur when recommending improvements to specification production practices	9.1 Explain 3 problems when recommending improvements to specification production practices and a potential solution to each.			

Assessor comments/feedback

Y/600/6660	Knowledge of Curtain Walling Systems	Level 2	3 Credits
CW5			

The aim of this unit is to provide the learner with knowledge of the components of curtain walling systems and subsequent installation of Curtain Walling.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Understand the purposes and functions of a generic Curtain wall/Façade system.	1.1 Describe the purposes of a curtain wall system in terms of aesthetics, functionality and compliance with the relevant Building Regulations.			
	1.2 Describe 2 methods of Draining & Ventilating a Curtain Wall system.			
2. Understand the major components of a Curtain Wall system.	2.1 Describe 2 major structural components of a standard curtain wall system.			
	2.2 Describe the components for joining structural components of a standard curtain wall system.			
	2.3 Describe the functions of the components required to weatherproof the system.			
3. Understand how to fix a curtain wall to a structure.	3.1 Describe the various fixing methods.			
	3.2 Name 3 different materials the structure may be made of and explain the implications for the fixings.			
4. Understand how to glaze into a curtain wall system.	4.1 Describe how to glaze a window and door into a wall.			
	4.2 Describe how to temporary glaze glass / panel into a curtain wall.			
	4.3 Describe how to permanently glaze glass / panel into a curtain wall.			
5. Understand how to utilise edge details to seal the curtain wall to adjacent structures	5.1 Describe a typical side edge detail and how it is weatherproofed.			
	5.2 Describe a typical floor detail and how it is weatherproofed.			
	5.3 Describe a typical head detail and how it is weatherproofed			

Assessor comments/feedback

F/602/3940	Employment rights and responsibilities in the processing and manufacturing industries	Level 2	3 Credits
ERR1			

The aim of this unit is to ensure that individuals have a general insight into the processing / manufacturing industry as a whole, its purpose, and the roles, responsibilities and rights of employees and employers.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know what is included in the Induction Process.	1.1 Explain what the term “induction” means, why it is necessary for new employees; when it begins; its duration, and who conducts it.			
	1.2 Explain what subjects and issues are covered during an induction.			
	1.3 Describe what information sources concerning the industry, the company and career paths are readily available.			
2. Know the basic concepts of Employment Law.	2.1 Describe the key features of a Contract of Employment.			
	2.2 Explain how the “Working Time Directive” governs contractual working hours and holiday entitlements.			
	2.3 Explain how Data protection legislation impacts upon employer – employee relationships.			
	2.4 State the rights of an employee in Discipline Grievance and Dismissal issues.			
3. Know the basic principles of how safety, health and environmental legislation applies to their industry.	3.1 Explain the prime employer / employee rights and responsibilities within the workplace, towards the general environment and the public at large.			
	3.2 Describe the key, potential hazards for people and the environment and how these are dealt with, through legislation and good practice.			
	3.3 Explain the general principles of statutory, workplace risk assessment processes.			

Assessor comments/feedback

F/602/3940	Employment rights and responsibilities in the processing and manufacturing industries (continued)	Level 2	3 Credits
ERR1			

4 . Know the purpose of the Industry, it's processes and key stakeholders.	4.1 State the main purpose of the Industry.			
	4.2 State the key materials, equipment and processes involved in the industry.			
	4.3 State guidance and documentation relevant to the job role.			
	4.4 State the major organisations associated with the industry and the role that they play. To include: <ul style="list-style-type: none"> • Competitors • Suppliers • Customers • Federations/Associations 			
5. Know how their job role fits within the organisation.	5.1 Obtain the organisation structure, and explain job roles and reporting structures.			
	5.2 State how their role contributes to the organisation's aims.			
6. Know how discrimination and harassment can affect the workplace	6.1 State the Acts relative to Gender, race, age and pay.			
	6.2 State the responsibilities of Trade Unions and the benefits to employees.			

Assessor comments/feedback

Notes

Notes



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