SVQ FENESTRATION INSTALLATION and SURVEYING at SCQF Level 6

Qualification Reference Number

GT84 46

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PERSONAL COMPETENCE SUMMARY

Name	Company/Centre
Job Title	GQA Registration Number

Unit Number	Optional Group A - All pathways: choose either GQAFEN18 or GQAFEN17	Level	Credit Value	Assessor signature	Date
GQAFEN18	Comply with Building Regulations/Standards related to curtain walling in the fenestration industry	6	6		
GQAFEN17	Comply with Building Regulations/Standards related to windows, doors and conservatory installation and surveying in the fenestration industry	6	6		
Fenestration Installation (Pathway 1) Mandatory units					
GQAGLA10	Promote and maintain health and safety in the installation working environment	6	7		
GQAFSB3	Confirm installation instructions	5	6		
PROGEN12	Diagnose and rectify technical problems	6	7		
PROGEN04	Assess the quality of materials	6	7		
GQAFEN9	Install windows, doors, conservatories and non-complex curtain walling	5	6		
Fenestration Installation (Pathway 1) Optional Group A (choose any 2 units)					
Fenestration Surveying (Pathway 2) Mandatory units					
GQAGLA10	Promote and maintain health and safety in the installation working environment	6	7		
GQAFEN8	Produce specifications for fenestration installations	7	11		
GQAFEN7	Identify and agree fenestration installation requirements	6	13		
Fenestration Surveying (Pathway 2) Optional units (choose any 1 unit)					
Fire-Resistant Glazing (Pathway 3) Mandatory Units					
PROFEN21	Prepare to install fire-resistant glazing	6	6		

GQAFEN22	Establish the performance of fire-resistant glazing	6	8		
GQAFEN23	Identify appropriate fire-resistant glass	5	5		
PROFEN24	Install fire-resistant glazing	5	6		
GQAFEN28	Select fire resistant glazing sealants	5	4		
Fire-Resistant Glazing (Pathway 3) Optional units (choose any 1 unit)					

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

Observation in the workplace		Simulation(s)	
Oral assessment of knowledge		Work records	
Written work/assignment		Photographs/video	
Witness statement(s)		Audio	
Testimonial(s)		Products	
Other (please state)			

	Name and Signature	**Date**
Candidate		
Lead Assessor		
Internal Verifier		
EQA		

Candidate ID Photograph

Introduction to the Qualification

Who is this Qualification for?

This qualification is aimed at those who work as Installers and/or Surveyors of glass supporting systems, which could include window and door units, conservatories, curtain walling systems and/or Fire Resistant Glazing. The standard covers the most important aspects of the job.
This qualification is at Level 6, and should be taken by those who are experienced Installers or Surveyors, capable of dealing with a wide range of problems, including working with installations that have complex requirements. Candidates will often take a technical supervisory role, particularly in relation to less-experienced Installers or Surveyors. They will also work closely with customers and have well-developed customer service skills.

A further qualification for Fenestration Installation at Level 5 is also available.

Candidates for this qualification could be assessed installing or surveying in the context of windows and doors, curtain walling, screen walling, or conservatories.
Candidates for this qualification will primarily be working on customers' premises.

Candidates are likely to have jobs entitled, Installer (windows and doors), Architectural Glazing Installer , Conservatory Installer, Curtain Walling Installer, Fire-resistant Installation Specialist, Team Leader or Surveyor
A further qualification that covers Fenestration Installation and Surveying at SCQ Level 6 is also available.

What is required from candidates?

Routes to completion are by a combination of units appropriate to the specific job role of the individual, see below. Candidates can complete more than one both Pathway if this is appropriate

Candidates should prove that they can achieve all the statements listed from each element. Guidance on the evidence that will be acceptable is contained in the introduction to each unit.

Unit Number	Optional Group A - All pathways: choose either GQAFEN18 or GQAFEN17	Level	Credit Value
GQAFEN18	Comply with Building Regulations/Standards related to curtain walling in the fenestration industry	6	6
GQAFEN17	Comply with Building Regulations/Standards related to windows, doors and conservatory installation and surveying in the fenestration industry	6	6
Fenestration Installation (Pathway 1) Mandatory units			
GQAGLA10	Promote and maintain health and safety in the installation working environment	6	7
GQAFSB3	Confirm installation instructions	5	6
PROGEN12	Diagnose and rectify technical problems	6	7
PROGEN04	Assess the quality of materials	6	7
GQAFEN9	Install windows, doors, conservatories and non-complex curtain walling	5	6
Fenestration Installation (Pathway 1) Optional Group A (choose any 2 units)			
GQAFEN3	Remove existing windows, doors and panels and prepare apertures	5	5
GQAFEN10	Install complex curtain walling	6	11
GQAFEN13	Maintain and repair windows/ doors/ conservatories	6	9
GQAFEN14	Maintain and repair Curtain Wall installations	6	9
GQAFEN11	Install glass and panels into supporting frames and structures	5	6
GQAFEN16	Improve the work of the organisation in a glass or glass related working environment	6	8
GQAFEN12	Carry out post fenestration installation activity	5	5

GQAFEN15	Control fenestration installation sitework	6	11
GQAFEN2	Plan and monitor resources for use in fenestration installation	6	6
Fenestration Surveying (Pathway 2) Mandatory units			
GQAGLA10	Promote and maintain health and safety in the installation working environment	6	7
GQAFEN8	Produce specifications for fenestration installations	7	11
GQAFEN7	Identify and agree fenestration installation requirements	6	13
Fenestration Surveying (Pathway 2) Optional units (choose any 1 unit)			
GQAFEN2	Plan and monitor resources for use in fenestration installation	6	6
PROGEN06	Improve the work of the organisation through the use of resources, communication and working relationships	6	8
Fire-Resistant Glazing (Pathway 3) Mandatory units			
PROFEN21	Prepare to install fire-resistant glazing	6	6
GQAFEN22	Establish the performance of fire-resistant glazing	6	8
GQAFEN23	Identify appropriate fire-resistant glass	5	5
PROFEN24	Install fire-resistant glazing	5	6
GQAFEN28	Select fire resistant glazing sealants	5	4
Fire-Resistant Glazing (Pathway 3) Optional units (choose any 1 unit)			
GQAFEN25	Use of fire-resistant glazing in timber screens and doors	6	6
GQAFEN26	Install fire-resistant glazing in metal door and frame systems	6	6
GQAFEN27	Use of fire resistant glass in individual systems	6	6

Potential sources of evidence:

The main source of evidence for each unit will be observation of performance. This can be supplemented by the following types of physical or documentary evidence:

- Accident Book
- Correspondence/discussion with customer
- Customer feedback
- Damage and defect reports
- Delivery records
- Equipment used
- Inspection reports
- Audio/photographic/video
- Safety records
- Telephone Logs
- Installation activity
- Witness testimony
- Notes and memos
- Organisational reporting systems

Examples of Evidence:

- Completed surveys
- Glazing activities
- Damage/Defect reports
- Information systems, manual or electronic
- Resources (inc. People, time, materials, equipment, energy)
- Equipment (inc. Personal protective equipment, manual and power tools)
- Emergency procedures (inc. Responding to alarms, using firefighting equipment, isolating power and/or fuel supplies)

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. This document complements the appropriate SSC Assessment Strategy linked to this qualification.

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 Quality Assurance 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 EQAs 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 Quality Assurance 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

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:

- Dealing with emergencies
- Dealing with accidents
- Certain pre-approved real time simulators
- 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.

SVQ Candidate Declaration

Candidate Name……..

Centre/Company Name……..

Assessor(s) Name(s) ……..

I acknowledge receipt of this copy of the GQA qualification booklet. The unit structure provides information on which units must be achieved to be awarded the NVQ/SVQ. The individual units detail 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 understand that all evidence should be produced by me or be directly attributable to me.

I have been informed of the appeals system and have been issued with a copy of the appeals procedure, 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/centre Equal Opportunities Policy.

Candidate Signature ……..

Date ……..

Production/Process Activity Guideline

To aid new or established workers, a centre may wish to describe a normal holistic production/process activity relevant to the achievement of the national vocational qualification and identify which units it will contribute to, e.g. the act of preparation for work, implementation and completion will contribute to a number of units of competence.

Production/Process Activity Relevant to the Achievement of this Qualification	**Contributory to: Units/Elements**

GQAFEN18	**Comply with building regulations/standards related to curtain walling in the fenestration industry (Level 6, 6 Credits)** ***(Level 6 – Credits 6)***

Overview

This standard covers the broad requirements of the Building Regulations in England, Wales and Northern Ireland, and Building Standards in Scotland that are applicable to the fenestration curtain walling environment. You should ensure that installations do not endanger life and comply with the statutory requirements, keep your knowledge current and communicate with others when required. This standard is for you if you work in the Curtain Wall installation industry and are involved in on site installation work.

Performance Criteria

You must be able to:

1. carry out all work following current Building Regulations/Building Standards which apply to locations you are working in
2. communicate with others about regulations/standards following standard operating procedures
3. seek and obtain information on updates and changes to regulations/standards from reliable sources
4. update knowledge of regulations/standards at intervals which fit with changes in legislation and specified periods of time

Knowledge and understanding

You need to know and understand:

1. curtain walling projects and what they mean in practice
2. why building regulations or building standards exist and when they apply to the type of works being undertaken
3. Building Regulations/Standards complied with, in full, and the ones that must be considered to secure reasonable standards of health and safety for persons in and about buildings, affected by the works
4. which parts of the installation are covered by Building Regulations/Standards and how work carried out complies to these
5. who carries out inspections or approves products installed to ensure requirements of the Building Regulations/Standards are met
6. consequences of failed inspections on installers, building owners and main contractors
7. types of loads that can affect structures
8. how to support loadings on structures
9. how wind load can impact on structures and the choice of system used
10. how to ensure loads are transferred onto structural supports
11. main criteria of fire-resistant glazing so that a safe structure is kept in the event of a fire
12. how buildings with multiple floors can conform to requirements for emergency access in the event of fires
13. how curtain wall structures can restrict the internal spread of flames and smoke
14. advantages of installing thermally efficient curtain walling systems
15. methods of demonstrating compliance with fuel conservation requirements
16. what is meant by safety glazing and where it must be fitted
17. types of glass classified as safety glass
18. how to identify safety glass, the standards applicable and what marking indicates

19. whether un-marked glass can be classified as safety glazing
20. the term ‘finished floor level’
21. why it is necessary to make special provision for access to, and use of, buildings
22. safety requirements relating to door size, window operation and positioning of operating hardware
23. when to provide protection from falling
24. how protection from falling can be achieved using glazing
25. types of glazing required to provide protection from falling
26. how to prevent impact on glazing

Assessor Comments/Feedback

GQAFEN17	**Comply with Building Regulations/Standards related to windows, doors and conservatory installation and surveying in the fenestration industry** ***(Level 6 – Credits 6)***

Overview

This standard covers the broad requirements of the Building Regulations in England, Wales and Northern Ireland, and Building Standards in Scotland that are applicable to windows, doors and conservatories in the fenestration environment. You should ensure that installations do not endanger life and comply with the statutory requirements, keep your knowledge current and communicate with others when required.

This standard is for you if you work in the Fenestration Industry and are involved in surveying of installation sites and work.

Performance Criteria

You must be able to:

1. carry out work following current Building Regulations/Building Standards which apply locations you are working in
2. communicate with others about regulations/standards following standard operating procedures
3. seek and obtain information on updates and changes to regulations/standards from reliable sources
4. update knowledge of regulations/standards at intervals which fit with changes in legislation and specified periods of time

Knowledge and understanding

You need to know and understand:

1. why Building Regulations or Building Standards exist and when they apply to the type of works being undertaken
2. Building Regulations/Standards complied with, in full, and the ones that must be considered to secure reasonable standards of health and safety for persons in and about buildings, affected by the works
3. work that do not require Building Regulation/Standard compliance
4. which bodies can carry out inspections of the work or approve products installed and how the choice is made
5. consequences of failed inspections on Installers/Installation companies and home owners
6. different methods used to support loadings above standard openings
7. when a structural support should be present or installed
8. why any defects that may affect the installation and/or structure should be remedied prior to installing a window or doorset
9. when a bay window is, or is not, load-bearing
10. when and how to support loadings above bay windows
11. how to provide structural supports when required in new bay windows
12. how to ensure load is transferred onto new structural supports
13. requirements of egress windows in terms of minimum area, minimum size and position of lower edge of openings relative to finished floor level
14. where fire-resistant windows (glazing) must be installed
15. where fire-resistant doorsets must be installed

16. where self-closing fire-resistant doorsets must be installed
17. advantages of installing thermally efficient windows and doorsets
18. methods of demonstrating compliance with fuel conservation requirements
19. meaning of ‘U-value’ and the difference between whole window Uvalue (uw) and centre pane glazing U-value (ug)
20. when centre pane glazing U-value (ug) may be used to demonstrate compliance
21. maximum U-value for windows and doorsets installed
22. terms “Window Energy Rating” or “Door Set Energy Rating”, and how they differ from u-value
23. organisations used to energy rate windows and doorsets
24. maximum WER for windows and DSER for doorsets installed
25. effects that the width of gaps between the panes of insulated glass unit(IGU) has on the thermal performance of the IGU 27
26. effects of gas filling, including argon, on the thermal performance of an IGU
27. effects on thermal performance of installing secondary glazing and when it is needed
28. the definition of safety glazing
29. where safety glazing must be fitted
30. types of glass classified as safety glass
31. how to identify safety glass, the standards applicable and what the marking indicates
32. whether un-marked glass can be classified as safety glazing
33. the term ‘finished floor level’
34. how safety glazing relates to windows fitted in bathrooms
35. how safety glazing is applied to stairways and how the drop is measured
36. when marked safety glazing may be omitted from installations
37. requirements for background (trickle) ventilation and how this can be provided
38. requirements for purge ventilation and how this can be provided
39. what the term ‘the replacement windows should not make the existing capability worse’ means in practice
40. options available for use, to allow ventilation through window structures
41. why it is necessary to make special provision for access to, and use of buildings
42. access requirements relating to door size
43. access requirements relating to window operation and positioning of operating hardware
44. resistance to the ingress of moisture around window and door openings

45. requirements to ensure moisture does not ingress between windows/doorsets and building fabrics
46. limitations when installing low-threshold sills to doorsets
47. differences between open-flued and close-flued combustion appliances
48. why open-flued combustion appliances may need ventilation through windows and how this is achieved
49. requirements of ventilation for non-room sealed combustion appliances
50. requirements of positioning window/door openings in relation to combustion appliance flue outlets
51. when to provide protection from falling and containment
52. how glazing can be used for containment or protection from falling
53. types of glazing required to provide protection from falling and containment, and how to identify it

Assessor Comments/Feedback

GQAGLA10	**Promote and maintain health and safety in the installation working environment** ***(Level 6 – Credits7)***

Overview

This standard covers the broad requirements of health and safety within the onsite glazing environment. It covers the need to follow health and safety guidelines and ensuring that the work area is free from hazards. In the event of emergencies, glaziers are expected to ensure that medical assistance is summoned and that the emergency services are called where necessary.

This standard is for you if you carry out installation work in a construction related working environment

Performance Criteria

You must be able to:

1. follow the regulations and guidelines for health and safety protection at all times
2. assess any risks to the health and safety of self and others following safe working practices and take action following standard operating procedures
3. identify any health and safety hazards and take action to prevent harm to individuals and give priority to the prevention of injury to people over damage to property
4. adopt safe working practices, and use and maintain safety equipment and personal protective equipment following safe working practices
5. follow manufacturers' and other relevant instructions and training relating to the safe use of installation equipment and materials
6. inform visitors to the work area of health and safety procedures, and help minimise unauthorised access to hazardous areas
7. monitor colleagues to confirm they comply with health and safety requirements

Knowledge and understanding

You need to know and understand:

1. relevant health and safety regulations and guidelines
2. how to obtain current information on health and safety regulations and guidelines
3. duties of employers and employees in relation to health and safety
4. how, when and why to undertake risk assessments
5. who should be informed of health and safety hazards and when and how to do so
6. how to identify safe and unsafe working practices
7. types of safety equipment and personal protective equipment that should be used in different situations
8. who is authorised to enter dangerous areas
9. types of accidents and emergencies that could occur and how to minimise the risks
10. organisational procedures for responding to accidents and emergencies
11. how to summon medical assistance and alert the emergency services, and information to be provided
12. evacuation procedures for workers and visitors, and where people should gather
13. incident reporting procedures

Assessor Comments/Feedback

GQAFSB3	Confirm installation instructions (Level 5 - Credits 6)

Overview

What is this standard about?

This standard covers the need to confirm installation instructions before commencing a job. All the requirements of the work have to be confirmed and all relevant specifications will have to be obtained.

The type of access equipment used during the work has to be agreed and its availability confirmed. Every detail relevant to the commencement and completion of the work has to be obtained. All information has to be recorded accurately and all relevant documents completed.

This standard is for you if you carry out on site installation work.

Performance Criteria

You must be able to:

1. comply with health and safety requirements, and relevant statutory regulations and industry standards/codes of practice fully at all times
2. obtain installation instructions in a timely manner that are clear and accurate from the appropriate people in the organisation, including the schedule and location of the installation 3. obtain all important specifications for the installation promptly
3. confirm that all relevant permits to work have been obtained promptly
4. agree the access equipment needed to work safely and efficiently and confirm its availability
5. identify what equipment and materials will be required to complete the installation work to comply with all relevant legislation
6. agree with colleagues in a clear and cohesive manner how the installation work will be completed
7. record information on the specifications and the installation work needed to deliver them accurately and in the appropriate information systems

Knowledge and understanding

You need to know and understand:

1. the relevant health and safety requirements, and relevant statutory regulations and industry standards/codes of practice that have to be complied with
2. who is authorised to provide installation instructions
3. how to obtain and confirm the specifications of the installation
4. 4.what permits to work are required for different types of installations
5. 5.what type of access equipment should be used for different types of installation and who is competent to erect these
6. 6.what type of problems could occur with the installation and the standard operating procedures for dealing with them
7. 7.what type of environmental problems could occur with the installation and the standard operating procedures for dealing with them
8. the correct equipment and materials for the different types of installation
9. what information systems should be used and why it is important to record information

Assessor Comments/Feedback

PROGEN12	Diagnose and rectify technical problems (*(Level 6 – Credits 7)*

Overview

This unit covers the diagnosis and rectification of technical problems in fenestration installation and surveying, i.e. those problems that require a high degree of problem solving. Often the location of a technical problem is not immediately apparent, and the candidate will have to investigate the location of the problem and identify its nature. Once the location and nature of the fault is identified, it is necessary to identify what is actually causing it: this might be a component, or faulty materials, or even faulty design.

The candidate will then have to work through a number of solutions before determining the right one.

Performance Criteria

You must be able to:

1. comply with health and safety requirements and procedures that are relevant to the work
2. obtain relevant information about technical problems from reliable sources
3. investigate technical problems, determining cause and location, using appropriate diagnostic methods
4. select actions to diagnose and rectify technical problems that are appropriate to problems encountered
5. record information on identification, diagnosis and rectification of technical problems in appropriate information systems
6. arrange for rectification of technical problems using appropriate personnel, equipment, materials, and work procedures in line with organisational procedures
7. ensure that rectification meets specification and work requirements verify that technical problems have been rectified and monitor them over a suitable period
8. identify issues with problem diagnosis and rectification work and deal with them according to standard operating procedures
9. refer to expert assistance when required in line with organisational procedures
10. keep relevant people informed of the consequences of and progress with resolving technical problems

Knowledge and understanding

You need to know and understand:

1. relevant health and safety responsibilities and obligations
2. relevant health and safety procedures that need to be followed
3. types of technical problem that could occur in your work, their locations, indications and possible causes
4. how the resolution of technical problems has turned out previously
5. actions required to identify different types of technical problem
6. how to isolate technical problems to determine their actual location
7. what to do if you cannot identify the location of technical problems
8. how to approach problems in locations that are difficult to access or non-accessible
9. when is it advisable to escalate attempts to find a technical problem, and what other actions could be pursued
10. the most appropriate diagnostic methods for identifying the causes of technical problems
11. types of problem that can occur with the diagnostic process and rectification work, and the standard operating procedures for dealing with them
12. what equipment, materials, and work procedures should be used for different jobs
13. what information systems should be used and why it is important to use them

Assessor Comments/Feedback

PROGEN04	Assess the quality of materials *(Level 6 – Credits 7)*

Overview

This unit is concerned with being able to make an assessment of the quality of glass and glass-related materials/ components in fenestration installation and surveying, i.e. those materials that are either glass or are associated with their use, e.g. raw materials, frames and ancillaries. Candidates need to be able to identify the main characteristics of the glass and glass-related materials/components that they work with, and to ensure that the materials/components match the specifications required by the work being undertaken. They need to be able to detect any obvious variations, e.g. defects in the manufacture of the materials that could adversely affect the work. They also need to be able to identify the most likely causes of these variations, and make recommendations to correct them to the appropriate people.

Performance Criteria

You must be able to:

1. select the appropriate method and equipment to assess materials
2. ensure the equipment used to assess quality is functioning correctly
3. assess the materials/components using appropriate equipment and methods
4. identify the main characteristics and features of the materials/components
5. check that the materials/components accord with the information on them
6. report any discrepancies to the appropriate people according to standard operating procedures
7. obtain the correct specification for the materials/components
8. examine the materials/components for variations in quality using the appropriate methods
9. ensure the equipment used in the examination process is appropriate
10. identify correctly any variation between the quality of the materials/components and the specification
11. ensure the quality assurance results are recorded in the appropriate information systems
12. access all relevant information on the causes of the variation in materials/components
13. identify the most likely causes of the variation, and prioritise investigation accordingly
14. identify the causes of the variation
15. obtain expert assistance when the causes of the variation cannot be identified
16. identify suitable solutions for rectifying the causes of the variation
17. ensure quality assurance results are recorded correctly in the appropriate information systems

Knowledge and understanding

You need to know and understand:

1. the relevant health and safety responsibilities and obligations
2. the relevant health and safety procedures that need to be followed
3. what quantity of materials/components should be used for different work activities
4. the type of materials/components are required for different jobs
5. how to confirm the specification of materials/components
6. the types of variation in quality that could occur
7. the indications of the variations in quality
8. the most appropriate types of information for identifying causes of a variation
9. the likelihood of a variation occurring in different materials/components
10. the types of corrective action that can be carried out
11. how to make recommendations for correcting variations in quality
12. the importance of quality checks and the possible implications if they are not carried out
13. the methods that can be used for verifying whether the correct cause of a variation has been identified
14. when it is appropriate to bring in additional expertise, and the consequences on the organisation and the customer
15. the types of solution that are possible for different quality assurance problems
16. what information systems should be used
17. why it is important to use the information systems

Assessor Comments/Feedback

GQAFEN9	Install windows, doors, conservatories, or non-complex curtain walling (Level 5 - Credits 6)

Overview

This standard covers the securing and completion of fenestration systems. Fenestration systems could be windows (including roof light, oriel, bay and box sash), doors, conservatories or curtain walling systems. These consist of frame components for holding doors, windows, or panels. Systems will either provide the external surfaces of a building or be positioned within large apertures. You will need to use appropriate tools, equipment and materials to secure systems, checking your work against job specifications.

This standard is for you if you work in the Fenestration Industry and are involved in on site installation work of any or all of windows, doors, conservatories and basic curtain walling

Performance Criteria

You must be able to:

1. comply with health and safety requirements and procedures at all times
2. check installation sites and all relevant surfaces are prepared to meet specifications
3. obtain and use specified installation materials following safe working practices
4. select and use appropriate tools and equipment for fixing following working practices and manufacturer's instructions
5. fix installation materials to structures so that they are secure, following safe working practices and current relevant legislation
6. apply specified materials following manufacturer's instructions and safe working practices to provide weatherproof installations
7. finish work to meet specifications and following safe working practices
8. check installation work is level and plumb to meet specifications
9. remove tools and equipment from work areas and store them following standard operating procedures
10. remove surplus materials and debris from work areas and dispose of them following standard operating procedures and current legislation
11. record information in appropriate information systems

Knowledge and understanding

You need to know and understand:

1. health and safety responsibilities, obligations and procedures that need to be followed
2. how to ensure installation sites are prepared
3. different types of material used for installations and weatherproofing of internal and external finishes
4. factors that could determine whether sections are assembled prior to positioning or assembled in situ
5. how to handle different types of installation materials
6. methods for securing installation materials to different types of structures following industry recognised best practice
7. how different installation materials fit together
8. types of damage that can affect installation materials and how to minimise the risk of damage
9. how to deal with surplus materials including disposal, recycling and reuse
10. types of materials that need to be restocked and how to obtain these
11. how to undertake final inspection of installation work, including whether drainage holes are clear and functioning
12. types of problem that can occur with installation work and the standard operating procedures for dealing with them
13. information systems used and why it is important to use them
14. information and instructions to provide to customers relating to operation, cleaning and warranties

Assessor Comments/Feedback

GQAFEN3	Remove existing windows, doors and panels and prepare apertures (Level 5 - Credits 5)

Overview

This standard involves preparing apertures during the refurbishment of a property. This standard would not be appropriate for a new building or new installation. This can be carried out in relation to replacement of windows (including roof light, oriel and box sash), doors and panels either as part of a window or door system or which form part of a conservatory or curtain walling. You will need to remove any existing windows and doors from apertures and restructure apertures or create new openings as required. You will need to check apertures against specifications, and remove all debris. Finally, you will need to provide new surface finishes ready for installation

This standard is for you if you work in the Fenestration Industry and are involved in on site removal of existing windows and doors and preparation of apertures for installation work

Performance Criteria

You must be able to:

1. check and confirm suitability of materials and other resources
2. identify products for removal and agree schedules of work with appropriate person(s)
3. identify fixtures and fittings that will prevent or restrict installations following standard operating procedures
4. remove and store fixtures and fittings to allow effective refitting following safe working practices
5. remove components, materials and outer frames from apertures following safe working practices and in ways that cause minimum damage to structures and surrounding areas
6. inspect, fit or replace any existing damp proof barriers required to meet specifications
7. handle materials to minimise damage following safe working practices
8. cut, shape and assemble materials to meet specifications
9. minimise waste following safe working practices
10. check materials fit plumb and square to prepared apertures following standard operating procedures
11. check new or restructured apertures meet specifications

Knowledge and understanding

You need to know and understand:

1. how to identify effective work schedules
2. how to identify dangerous materials and infestations that might be present
3. types of structural supports available and when they are needed
4. why it is important to remove fixtures and fittings in a way that allows effective refitting where required
5. how to remove existing frames and components of different materials to avoid damage to surrounding areas and why this is important
6. different types of materials used for internal and external finishes
7. how to prepare apertures for installation
8. consequences of not preparing apertures correctly
9. typical problems that can occur in the preparation of apertures and how to deal with these
10. when and where damp-proof barriers are needed and the materials used for this purpose

Assessor Comments/Feedback

GQAFEN10	Install complex curtain walling *(Level 6 – Credits 11)*

Overview

This standard covers the positioning, securing and preparation of complex curtain walling. The complexity could be because the products have unique requirements relating to their production, have features that are difficult to achieve, or require a mixture of materials and processes that are particularly unusual. Curtain walling systems will either provide the external surfaces of a building or be positioned within a large aperture. You will need to position system components correctly, secure them to the main structure of a building and prepare them to support the panels.

This standard is for you if you work in the Fenestration Industry and are involved in on site installation work of Curtain Wall systems with complex features/requirements

Performance Criteria

You must be able to:

1. comply with health and safety requirements and procedures at all times
2. obtain reliable sources of information and assess the implication of complex requirements on installation processes
3. report any issues with requirements for complex curtain walling that you feel may affect safety, quality or timescales to relevant people
4. check installation sites and all relevant surfaces are prepared to meet specifications
5. use specified installation materials and fixings following safe working practices
6. position installation materials to meet specifications
7. identify, select and use appropriate tools and equipment for fixing complex curtain walling following safe working practices and manufacturers' instructions
8. fix installation materials to structures so that they are secure and apply specified materials following manufacturer's instructions to provide a weatherproof installation
9. check installation materials are undamaged and are capable of supporting panels following standard operating procedures
10. finish work checking that installation work is plumb, functions as required and meets specifications
11. remove tools and equipment from work areas and store them following standard operating procedures
12. remove surplus materials and debris from work area and dispose of them following standard operating procedures and current legislation
13. restock any materials used from appropriate sources that are necessary for further work

Knowledge and understanding

You need to know and understand:

1. types of complex requirements that could arise including unique production requirements, difficult features or unusual combinations of materials or processes
2. implications of complex requirements on installations
3. special methods, equipment and resources necessary to deal with complex requirements
4. health and safety responsibilities, obligations and procedures that need to be followed
5. how to ensure installation sites are prepared correctly and following safe working practices
6. purpose of Datum points and how to use them
7. different types of materials used for installations and weatherproofing of internal and external finishes
8. factors that could determine whether sections are assembled prior to positioning or assembled in situ and the benefits of them
9. why it is important to ensure no applied loads are carried by individual sections
10. how to handle different types of installation materials
11. methods for securing installation materials to different types of structures
12. how and when to check and ensure structures are aligned and plumb and why this is important
13. how different installation materials fit together
14. type of damage that can affect installation materials and how to minimise the risk of damage

14. identify any problems relating to installation work and deal with them following standard operating procedures
15. record information on work in appropriate information systems
16. pass relevant information to customers about operation and cleaning of curtain walling following standard operating procedures

15. how to deal with surplus materials including disposal, recycling and reuse
16. type of materials to be restocked and how to obtain these
17. how to undertake final inspection of installation work, including whether drainage is clear and functioning
18. types of problem that can occur with installation work and the standard operating procedures for dealing with them
19. information systems be used and why it is important to use them
20. information and instructions to provide to customers relating to operation and cleaning

Assessor Comments/Feedback

GQAFEN13	Maintain and repair windows / doors / conservatories (Level 6 - Credits 9)

Overview

This standard is concerned with maintenance work on windows, doors, and/or conservatories. You will need to dismantle windows and doors, or conservatories, before undertaking maintenance. You will need to undertake maintenance using the correct materials and then reinstate and restore the system to full operation.

This standard is for you if you work in the Fenestration Industry and are involved in on site maintenance and repair work

Performance Criteria

You must be able to:

1. identify maintenance and repair work required and possible solutions
2. confirm maintenance and repair work is within own level of expertise
3. identify and remove fixtures and fittings which prohibit maintenance and repair work following safe working practices
4. store removed fixtures and fittings following standard operating procedures
5. remove material from installation using methods and equipment that cause minimum damage to surrounding structure
6. identify, select and use materials for maintenance and repair that are fit for purpose and meet customer requirements
7. identify, select and use tools and equipment that complete maintenance and repairs to meet specifications
8. carry out maintenance and repairs within timescales acceptable to all parties
9. insert and remove any structural supports/temporary measures required to support/protect installations during maintenance or repair
10. apply finishing materials so they are solid, level and comparable with existing surfaces
11. replace and secure fixtures and fittings removed during maintenance and repair to meet specifications
12. check glazing components function to meet specifications
13. remove surplus materials and debris from site, and dispose of them following standard operating procedures and current legislation

Knowledge and understanding

You need to know and understand:

1. differences between maintenance and repair
2. how to assess requirements and decide on actions needed
3. actions taken if hazardous materials are exposed during dismantling to minimise periods during which installations cannot be used
4. how to inform customers of further actions required if repairs are only temporary to include timescales and restriction of use
5. why it is important to remove materials and debris from sites after completing work
6. problems that can occur with maintenance work and how these might be overcome
7. different types of maintenance/repair work carried out on products
8. how to identify replacement parts or components needed for maintenance/repair work
9. how to remove defective parts to avoid damaging installations
10. systems for recording work undertaken and information included
11. how to select finishing materials to be used to match existing finishes

14. give relevant information to customers about maintenance and repairs carried out, giving them the opportunity to ask questions and seek clarification 15. complete necessary records following standard operating procedures	

Assessor Comments/Feedback

GQAFEN14	Maintain and repair Curtain Wall installations (Level 6, Credits 9*)*

Overview

This standard is concerned with maintaining curtain walling. Curtain walling systems can have unique requirements relating to their production; have features that are difficult to achieve, or require a mixture of materials and processes that are particularly unusual. You will need to dismantle glass supporting systems before undertaking maintenance. You will need to undertake maintenance, minimising the period during which installations cannot be used, liaising with the customer about progress. When maintenance is complete you will need to reinstate and restore curtain walling to full
This standard is for you if you work in the Fenestration Industry and are involved in on site maintenance and repair work to Curtain Wall systems.

Performance Criteria

You must be able to:

1. comply with health and safety requirements and procedures at all times
2. identify maintenance/repair work required and confirm it is within your level of expertise
3. identify any problems relating to maintenance/rep air work and deal with them following standard operating procedures
4. identify and remove fixtures and fittings which prohibit maintenance/repair work following safe working practices
5. store removed fixtures and fittings following standard operating procedures
6. remove material from installation using methods and equipment that cause minimum damage to surrounding structures
7. select and use materials for maintenance/repair work that are fit for purpose and meet customer requirements
8. select and use tools and equipment to complete maintenance/repair to specifications
9. carry out maintenance/repair work within timescales acceptable to all parties and in a way that minimises period installations cannot be used
10. undertake maintenance/repair work following standard operating procedures and safe working practices
11. insert and remove structural supports required to support installations during maintenance/repair work
12. apply finishing materials so that they are solid, level and comparable with existing surfaces

Knowledge and understanding

You need to know and understand:

1. health and safety responsibilities and obligations relevant to the work
2. health and safety procedures that need to be followed
3. type of complex requirements that could arise
4. special methods and equipment necessary to deal with maintenance /repair work
5. actions taken if dangerous materials are exposed/suspected during dismantling
6. structural supports used for different installations
7. how to remove and store fixtures and fittings
8. why it is important to label removed fixtures and fittings
9. how to remove different materials from installations
10. how different types of components are maintained
11. alternative solutions that could be offered to customers
12. how to ensure maintenance meets customer requirements
13. types of action required when repairs are temporary
14. information to provide to customers if repairs are temporary to include timescales and restriction of use
15. types of finishing materials used in different circumstances
16. why it is important to remove materials and debris from sites
17. how to deal with surplus materials to include disposal, recycling and reuse
18. how different types of installation material are handled

13. replace and secure fixtures and fittings removed during maintenance or repair to meet specifications
14. check glazing components function to meet specifications
15. remove surplus materials and debris from sites, and dispose of them following standard operating procedures and current legislation
16. give relevant information to customers about maintenance/repair work giving them the opportunity to ask questions and seek clarification
17. record information on maintenance/repair work in appropriate information systems

19. types of materials to be restocked and how to obtain these
20. information systems used
21. why it is important to use the information systems

Assessor Comments/Feedback

GQAFEN11	Install glass and panels into supporting frames and structures (Level 5, Credits 6)

Overview

This standard covers the installation of glazing and panels into supporting frames and structures. This relates primarily to installing replacement components and could apply to windows and doors, conservatories, or curtain walling systems. You will need to position and secure glass or panels and seal them to ensure a weather-tight fit. You will also need to check that your work meets all specifications and ensure that customer's requirements have been met. Customers could be inside or outside the organisation.

This standard is for you if you work in the Fenestration Industry and are involved in on site installation work of glass panels

Performance Criteria

You must be able to:

1. check that drainage is clear of blockage and functions to meet specifications
2. obtain glass and panels and confirm these meet specifications and current legislation
3. position glass and panels into apertures and secure them to meet specifications following safe working practices
4. check glass and panels align with frames and are plumb after being secured
5. select weatherproofing materials to meet specifications
6. apply specified weatherproofing materials to provide a weatherproof installation following safe working practices and recognised best practice
7. finish work to meet specifications
8. conduct final inspections checking glass and panels function to meet specifications

Knowledge and understanding

You need to know and understand:

1. how to obtain specifications for the work and how to interpret them
2. why it is important for drainage to be clear and functioning
3. different approaches to be taken for different types of glazing products including single glazing, insulated glass units and PVC or polycarbonate panels
4. different methods used to install glass into different types of installation
5. different consumables and substances used for securing, weatherproofing and finishing, how to use them and when it is appropriate to use them
6. problems related to the glazing work and how these might be overcome
7. who to report problems to that you cannot resolve yourself and why this is important
8. reason for using packers and glazing bridges when installing glass or panels
9. locations for packers and glazing bridges and the reason for placing them in these locations
10. how to check glass and panels are functioning correctly after installation
11. how to conduct final inspections of the work undertaken

Assessor Comments/Feedback

GQAFEN16	**Improve the work of the organisation in a glass or glass related working environment *(Level 6 – Credits 8)***

Overview

The aim of this standard is to provide the learner with the knowledge and skills to be able to contribute to the improvement of the organisation through the effective use of resources, manpower, communication methods and working relationships within the glass or glass related working environment. This standard is for you if you work in the Glass Industry and have the skills, knowledge and opportunity to look at and suggest ways to improve performance and/or business processes.

Performance Criteria

You must be able to:

1. share information with colleagues using different methods following standard operating procedures
2. identify potential improvements with glass or glass related activity
3. research how potential improvements can be implemented and benefits gained
4. discuss potential improvements and outcomes with colleagues and decision makers
5. develop plans for making suggested improvements following standard operating procedures
6. pass identified improvements on to colleagues and explain why they are needed
7. review improvements made to see if they have had an impact on the organisation and amen

Knowledge and understanding

You need to know and understand:

1. how to ensure the correct quantities of products and materials and team members are selected
2. how to minimise waste and to recycle or reuse surplus materials
3. how to give instructions to colleagues so that the correct quantities of products and materials are used and how to reuse surplus products and materials
4. how to monitor colleagues' use of products and materials
5. types of materials that can be wasted
6. actions taken to minimise wastage of materials
7. reasons for contributing to improving the effectiveness of the glass or glass related organisation
8. benefits of sharing information which is clear, sufficient and accurate
9. types of information which needs to be shared with colleagues, related to the glass or glass related activity
10. the importance of sharing information and who needs to be informed
11. ways to identify improvements that can be made in work activities
12. how to research improvements identified to see if they are viable
13. how to pass on suggestions for improvements identified
14. who to make the suggestions to and why these people need to be made aware
15. how to implement improvements identified so that colleagues understand the need for the changes
16. how to review improvements made to see if they are working effectively and to amend them if they are not working
17. what makes good working relationships

	18. benefits of having good working relationships with colleagues 19. benefits of having good relationships with customers

Assessor Comments/Feedback

GQAFEN12	Carry out post fenestration installation activity (Level 5, Credits 5)

Overview

This standard covers the need to ensure the installation of the fenestration products has been completed to specification, and the quality of finish is to a required standard. This could apply to windows and doors, conservatories, or curtain walling systems. Customers can be internal or external to the organisation. You must be able to explain and demonstrate the operation of the fenestration product installed to the customer, in a professional manner and answer any questions. You will need to complete all handover documentation and ensure that all relevant records are retained.

This standard is for you if you work in the Fenestration Industry and are involved in finishing off on site installation work

Performance Criteria

You must be able to:

1. check any existing fixtures and fittings are undamaged and in position to meet specifications
2. apply finishing materials so they are comparable with existing surfaces following standard operating procedures
3. remove surplus materials and debris from site and dispose of them following standard operating procedures
4. remove tools and equipment from work area and store them following standard operating procedures
5. clean and finish the installation to meet specifications
6. conduct final inspections of work carried out, checking components function to meet specifications
7. pass relevant documentation relating to installation to customers
8. give relevant information to customers about warranties, operation and cleaning of installations, giving them the opportunity to ask questions and seek clarification
9. record information on installation activity following standard operating procedures

Knowledge and understanding

You need to know and understand:

1. how to ensure installation is well presented and completed to meet specifications
2. types of further work required and how to deal with this
3. how to dispose of surplus materials including disposal, recycling and reuse
4. why it is important to remove all materials and debris from the site, and return areas to original state
5. documentation that comes with different products and installations and why this is important
6. types of information recorded on installation activity
7. standard operating procedures for dealing with payments
8. information and instructions given to customers on completion of work
9. typical questions asked by customers and how to respond appropriately
10. how to check customers understand information provided and why this is important
11. problems that might occur during post installation activity and handover and how they might be overcome
12. information systems used and why it is important to record information

Assessor Comments/Feedback

GQAFEN15	Control fenestration installation sitework *(Level 6 – Credits 11)*

Overview

This standard covers controlling installation work. Installation can be of doors and windows, or conservatories or curtain walling. While not necessarily being a supervisor, you will need to monitor what is happening during installation and ensure that any problems are identified with the equipment or with working practices. Because you are experienced in installation work, you should be able to provide advice and guidance to other workers on what to do in a variety of routine and non-routine situations. You will also need to use equipment correctly and identify where work practices could be improved.

This standard is for you if you work in the Fenestration Industry and are involved in leading/supervising/controlling or coordinating on site installation work.

Performance Criteria

You must be able to:

1. obtain specifications, schedules and method statements relevant to work and interpret them
2. obtain information on customer requirements from reliable sources
3. check installers have skills, qualifications and licences necessary for them to operate
4. communicate work schedules, responsibilities and other relevant information/instructions to colleagues using clear and industry recognised communication methods
5. monitor progress of installation activities against schedule following standard operating procedures
6. identify potential issues and areas of good practice following standard operating procedures
7. provide prompt, clear and accurate information and guidance to colleagues including information on progress and changes to work schedules within own level of expertise/authority
8. communicate recommendations for changes/ improvements to relevant people using appropriate communication methods
9. record information on installation activities and progress following standard operating procedures

Knowledge and understanding

You need to know and understand:

1. how to obtain and interpret installation schedules, specifications and method statements
2. sources of information on customer requirements
3. how to identify if installers have the necessary skills, qualifications and licences and why it is important to check them
4. what to do if there are problems with the results of checks into installers skills, qualifications and licenses
5. when, why and how other trades may need to be involved/informed of work schedules
6. how to communicate work schedules and responsibilities to colleagues and ensure these are understood
7. processes to follow when monitoring the progress of installations
8. problems that may be encountered when controlling an installation and how these might be overcome
9. why it is important to record information

Assessor Comments/Feedback

GQAFEN2	Plan and monitor resources for use in fenestration installation *(Level 6 – Credits 6)*

Overview

This standard covers the need to identify and plan the use of resources to meet work requirements in fenestration installation. The work could be in relation to windows and doors, conservatories, or curtain walling systems. You will need to identify exactly what is required, and what resources should be used to achieve it as well as making sure that all the resources, including people, are used effectively to deliver work requirements. It is also important to monitor how the resources are used, and how the progress of the work is being maintained.

This standard is for you if you work in the Fenestration Industry and are involved in resource planning of on site installation work

Performance Criteria

You must be able to:

1. comply with health and safety requirements and procedures at all times
2. obtain and confirm work instructions from relevant sources
3. select options for achieving work requirements to meet specifications
4. identify and confirm resources required to meet specifications following safe working practices and legislation
5. use appropriate communication methods to ensure resource needs are clear and known to relevant people
6. devise schedules of work that identify each work task to be completed following safe working practices and standard operating procedures
7. provide information on work schedules to relevant people using appropriate communication methods
8. monitor provision and use of materials and other resources against specifications
9. identify any problems relating to work and progress of work and deal with them following standard operating procedures
10. monitor work against work schedules and record information on progress in appropriate information systems

Knowledge and understanding

You need to know and understand:

1. relevant health and safety responsibilities and obligations
2. relevant health and safety procedures that need to be followed
3. what work has to be done to meet different requirements
4. equipment, materials, and work procedures used for different jobs
5. how to devise effective schedules of work
6. how to monitor the progress of work
7. how to identify resources required for different types of work and how to ensure they are available
8. how and why to monitor resources being used
9. standard operating procedures for different activities and how to obtain information on them
10. types of problems that could occur
11. how to deal with problems

Assessor Comments/Feedback

GQAFEN8	Produce specifications for fenestration installations *(Level 7 – Credits 11)*

Overview

This standard is concerned with the preparation of technical documents for the installation of windows or doors, or conservatory or curtain walling installation. You will need to prepare graphical information, and any other information of a similar nature that would be useful to installers. This information can be generated manually or through the use of computers. You will also need to prepare text-based information, which is likely to be reports, notes or annotations. This information could also be used for the quality assurance of the work, while it is being undertaken, or at a later stage.

This standard is for you if you work in the Fenestration Industry and are involved in producing specifications from surveys for on site installation work

Performance Criteria

You must be able to:

1. obtain and confirm information required to produce specifications from reliable sources
2. produce specifications that are accurate, clear, complete and fit for purpose in formats required following standard operating procedures

Knowledge and understanding

You need to know and understand:

1. how to clearly identify requirements for technical information including reports, notes, correspondence, products and performance, ancillaries, their uses and how they can affect technical information provided
2. who requires technical information and why
3. how specifications impact on fabrication processes
4. formats for presenting technical information
5. how to check technical information is accurate, clear and complete and the installation work will comply with current, relevant legislation
6. industry regulations/legislation affecting fenestration installations

Assessor Comments/Feedback

GQAFEN7	Identify and agree fenestration installation requirements *(Level 6 – Credits 13)*

Overview

This standard covers the need to identify the requirements for the installation of doors and windows, or conservatories or curtain walling. You will need to identify exactly what the customer wants, explain how this can best be achieved and agree with customers the action that should be taken. It could be work that is undertaken immediately, but it could also be a matter of referring the customer to a specialist. You will need to communicate with customers in a number of different ways. Customers could be internal or external to the organisation, with external customers being private or commercial.

This standard is for you if you work in the Fenestration Industry and are involved in identifying, confirming and recording details of onsite installation work.

Performance Criteria

You must be able to:

1. obtain and confirm information from customers about their fenestration installation requirements following standard operating procedures
2. discuss and feedback viable options to customers that will achieve their fenestration requirements following standard operating procedures
3. discuss and inform customers of the importance of other energy efficiency measures to consider
4. obtain accurate measurements and other relevant information following standard operating procedures
5. obtain information from reliable sources on site and structural conditions and any other relevant information that could affect installations
6. exchange relevant information with customers following standard operating procedures
7. record and deal with information obtained during surveying processes following standard operating procedures
8. check specifications can be completed following standard operating procedures and current legislation

Knowledge and understanding

You need to know and understand:

1. information that needs to be obtained from customers
2. fenestration options available and how to describe them to customers, to include specialist glazing types such as acoustic glazing, fire resistant glazing or bullet/blast proof systems
3. energy efficiency measures that may be of interest to customers
4. potential problems and how to identify them
5. how to deal with problems
6. Building Regulations/Standards and other current legislation that applies to the proposed work
7. where to find up to date and accurate information on Building Regulations/Standards and other relevant legislation
8. how to ensure information obtained is in line with customer requirements
9. how to ensure the work will comply with current legislation, guidelines and codes of practice
10. measurements and other information required for different types of installation
11. allowable tolerances and reasons tolerances are recorded
12. features that could have an effect on how the measurements and other information is obtained

Assessor Comments/Feedback

PROGEN06	**Improve the work of the organisation through the use of resources, communication and working relationships *(Level 6 – Credits 8)***

Overview

This unit covers the need to get beyond the immediate requirements of the job, and to view work as more than just utilising technical skills. The candidate should not only try to improve the work of the organisation, but should also encourage others to do so. The unit covers the need to keep costs down by using resources effectively, and this means ensuring all those that undertake the work also try to do this. It is important that equipment is used economically, that components are not damaged, and that materials are used in the correct quantities. Surplus materials are retained wherever possible. The unit is also concerned with obtaining and providing information to ensure that all the information required to undertake the work correctly is available. It also covers the need to provide information to colleagues to ensure they are fully informed of the work that is being undertaken.

Finally, the unit covers the need to develop and maintain good working relationships within the organisation, especially with colleagues, but also importantly with customers.

Performance Criteria

You must be able to:

1. ensure suitable quantities of materials are used during work activities
2. ensure surplus materials are salvaged for further processing wherever possible
3. ensure equipment is used efficiently and carefully in accordance with standard operating procedures and manufacturers' instructions
4. ensure equipment is maintained according to standard operating procedures
5. minimise expenditure on non-essential items wherever this does not affect quality
6. identify and pass on potential improvements to work activities to the appropriate people
7. provide information to colleagues as soon as possible after they have requested it
8. ensure information provided to colleagues is accurate and contains sufficient detail to meet their requirements
9. provide information in a way that is appropriate to the person requesting it
10. identify any problems relating to the exchange of information and deal with them according to standard operating procedures
11. exchange information according to standard operating procedures
12. treat people in a way that maintains good working relationships
13. bring to the attention of colleagues information that might have an immediate effect on their work
14. carry out requests from colleagues promptly without holding up the course of the work
15. refer requests that cannot be met to an appropriate person

Knowledge and understanding

You need to know and understand:

1. how different types of material should be transported and stored
2. the quantity of materials that should be used for different work activities
3. which materials can be salvaged, and how they are salvaged
4. the actions that can be taken to minimise wastage of resources
5. what equipment to use for different work activities
6. how to operate different types of equipment
7. how to avoid damaging equipment through incorrect use
8. the maintenance requirements of different types of equipment
9. the standard operating procedures for different activities
10. how to obtain information on the standard operating procedures
11. the types of information that needs to be shared
12. what information systems should be used
13. the most appropriate sources for different types of information
14. the procedures for exchanging different types of information
15. the consequences of exchanging inaccurate or incomplete information
16. the types of problems that could occur
17. how different types of problems can be resolved
18. why is it important to develop good working relationships with colleagues and customers

16. make available to others the resources that are required to achieve work activities
17. treat people's property with care and respect, and comply with security procedures wherever necessary
18. restrict any adverse impact of own work on other people
19. monitor and resolve problems in working relationships and report those that cannot be resolved to an appropriate authority as soon as possible

19. who should be informed of problems in working relationships
20. what are the grievance and disciplinary procedures that are available
21. ways to identify improvements that can be made in work activities
22. how to pass on suggestions for improvements that have been identified
23. who to make the suggestions to and what they need to be made aware of

Assessor Comments/Feedback

PROFEN21	Prepare to install fire-resistant glazing *(Level 6 – Credits 6)*

Overview

The aim of this unit is to provide the learner with the knowledge and skills to be able to ensure that all necessary guidance for successful installation/refurbishment of a fire resistant glazing system is available, that all components are provided to specification and that a correct method of work is devised. Unit to be assessed in accordance with the Proskills QCF Assessment Strategy and the AO Qualification Implementation Guidance.

Performance Criteria

You must be able to:

1. confirm your ability to supply and fit specified fire resistant glazing in line with organisational procedures
2. confirm that specifications are appropriate for applications in line with organisational procedures
3. establish that test evidence for specified systems is relevant, applicable and available
4. obtain information from reliable sources to identify access requirements
5. evaluate health and safety requirements of installation work in line with organisational requirements
6. confirm that lead and delivery times of materials comply with customer and organisational requirements
7. prepare plans for supplying materials and carrying out work in line with organisational procedures
8. obtain information from reliable sources to determine the need for handling equipment and storage requirements

Knowledge and understanding

You need to know and understand:

1. health and safety requirements related to preparation and installation
2. the differences between fire-resistant glazing and standard glazing
3. what to look for when inspecting sites to identify access requirements
4. the basics of fire containment in buildings
5. the meaning of fire safety compartmentalisation
6. the performance requirements of fire resistant glazing
7. ways to identify and select appropriate systems that comply with job specifications and legislation

Assessor Comments/Feedback

GQAFEN22	Establish the performance of fire-resistant glazing *(Level 6 – Credits 8)*

Overview

This standard covers the broad requirements of confirming fire-resistant glazing system is suitable and fit for purpose. You will need to identify the different types of supporting evidence of fire performance classification and confirm that the evidence provided is appropriate and applicable for the fire-resistant glazed system provided and to be installed. To do this you will need to understand product standards and test methods that ensure various elements of fire safety legislation are met.

This standard is for you if you work in the Fenestration Industry and are involved in work that includes checking and confirming how Fire Resistant Glazing systems will function

Performance Criteria

You must be able to:

1. obtain applicable test and assessment reports from reliable sources following standard operating procedures
2. identify key information from test and assessment reports and interpret it following industry recognised best practice
3. use relevant product performance documentation to identify compatible glazing system components
4. identify fire-resistant glazing with acceptable evidence of performance from reputable sources
5. check products selected meet glazing system specifications

Knowledge and understanding

You need to know and understand:

1. how fire-resistant glazed systems are subject to Building Regulations
2. establishing fire-resistance performance by industry recognised test is the only way to determine suitability
3. principles of standard test procedures
4. where to go for guidance on how to access regulations and standards
5. what product classification means
6. how fire-resistant glass is classified for performance
7. evidence required by regulations
8. acceptable forms of evidence of performance
9. how manufacturers and suppliers provide performance information
10. what fire test reports look like and contain
11. what third party certification certificate looks like and contains
12. what CE mark means and signifies
13. differences between test reports and assessment reports and how to use them
14. responsible official bodies in the UK who issue test and assessment reports
15. common third-party product certification schemes and their distinguishing company trademarks
16. what fire-resistant glazed systems have to do in fires
17. areas where fire-resistant glazing is required
18. areas where impact safety performance are required
19. how impact safety is designated
20. classification schemes for impact safety
21. records kept and why

Assessor Comments/Feedback

GQAFEN23	Identify appropriate fire-resistant glass *(Level 5 – Credits 5)*

Overview

This standard covers the identification of appropriate fire-resistant glass for installation and their principal characteristics. It also includes a preliminary check that the glass is appropriate. You will need to understand the way in which glass types are classified and the classification performance definitions, as well as be familiar with a range of product names. In addition to the fire performance of the glass, you will need to understand other safety and non-safety functions with respect to the proposed application.

This standard is for you if you work in the Fenestration Industry and are involved in work that includes identifying and confirming suitable Fire Resistant Glazing for onsite installation work.

Performance Criteria

You must be able to:

1. obtain current versions of manufacturers' documentation about fire resistant glass from appropriate sources
2. obtain and compile information to provide a verifiable trail back to manufacturers
3. check performance classifications for selected fire-resistant glazing fit performance specifications for applications
4. use classification marks, labels, documents and other visual references to identify fire-resistant glass following standard operating procedures
5. identify when incorrect performance claims regarding fire resistance are being made and question them through appropriate channels
6. check and establish special requirements of fire-resistant glass to ensure safe handling, use and specified fire-resistant performance
7. handle fire-resistant glass following standard operating procedures

Knowledge and understanding

You need to know and understand:

1. names of main manufacturers of fire-resistant glass
2. names of main fire-resistant glass types available
3. how to contact manufacturers to check and confirm information
4. where to find up to date information about products
5. why it is important for fire-resistant glass and other essential components in a fire-resistant glazed system to be identified by name and manufacturer
6. differences between fire-resistant glass and non-fire-rated standard glass products
7. definition of integrity and test criteria that apply
8. definition of insulation and the test criteria that apply
9. classification symbols that apply
10. what CE marking performance classifications mean
11. how to confirm performance from product information sheets
12. how to identify glass being used
13. acceptable product stamps and what they must include
14. what other information may be found on product stamps
15. how to identify unacceptable product stamps
16. requirements of safety glazing
17. meaning of impact safety
18. what containment from falling means and requires
19. general glazing requirements of applications
20. non-applicability of glass safety products and impact safety

Assessor Comments/Feedback

PROFEN24	Install fire resistant glazing (Level 5 - Credits 6)

Overview

This standard covers the learner's responsibility to plan the work, inspect and prepare the work site and provide appropriate documentation for the installed fire-resistant glazed system on completion of the work. The learner should demonstrate an understanding of the special requirements of fire-resistant glazing in view of the function that it has to carry out in the event of fire and the differences that this means compared with standard glazing. The learner will also have to show awareness of the fire safety legislation governing the assignment of responsibility for fire safety measures, including new and refurbished fire-resistant glazed systems.

Performance Criteria

You must be able to:

1. comply with health and safety requirements and procedures at all times
2. follow manufacturers' and others' relevant instructions that relate to the safe use of glazing equipment and glazing materials
3. inform visitors to work areas of any restrictions or possible hazards in line with organisational procedures
4. install glazing in line with defined installation instructions and guidelines
5. follow handling and storage guidelines in line with organisational procedures
6. inspect and approve the robustness of surrounding and supporting structures in line with manufacturers' and others' relevant instructions
7. obtain material listings, drawings and assembly guidance from applicable test or assessment approvals
8. interpret system drawings for fire-resistant glazed systems and apply them as per specification
9. provide all required components as specified in test reports
10. provide method statements for work on acceptance of orders in line with organisational procedures
11. provide drawings and material listings for glazed systems installed and its component parts in appropriate formats
12. provide fire performance classifications of installed fire-resistant glazed systems that are supported by recognised evidence from responsible sources
13. hand over certification or CE marking documentation or references that were provided with installed fire resistant glazed systems in line with organisational requirements

Knowledge and understanding

You need to know and understand:

1. how to undertake work risk assessments
2. how and why to identify promptly any health and safety hazards
3. who to report hazards and risks to
4. safe and unsafe working practices
5. what equipment to use and the required protective work wear
6. how to call medical assistance and alert emergency services
7. what type of information will need to be provided in case of accidents
8. requirements for lifting and moving heavy glazed units

Applicable regulations and legislation

9. requirements concerning standards of workmanship
10. what personal responsibility means
11. what personal competency means
12. best practice expectations

Installing glazing

13. the core requirements of fire-resistant glazed systems to be part of complete fire-resistant built elements
14. why it is important to follow manufacturer's specifications and other associated guidelines
15. the importance of not damaging glazing
16. what to do if the glazing is damaged
17. the importance of special glazing requirements where specified
18. the importance of not replacing specified materials with materials which are not approved
19. why glazing pockets should be cleaned and free from debris before re-glazing
20. the importance of avoiding frame to glass direct contact
21. the purpose of identifying stamps on the glass

22. why stamps should be visible and readable after glazing
23. the importance of providing rated fire stopping between installed frames and surrounding structures

Post installation

24. what is appropriate fire safety information
25. the importance of providing documents describing what has been installed to those responsible for the building

Assessor Comments/Feedback

GQAFEN28	Select fire resistant glazing sealants (Level 5 - Credits 4)

Overview

This standard covers the selection and application of glazing sealant for use within a fire-resistant glazed system. You will need to appreciate that glazing sealants are an essential part of the overall glazed system and the correct selection and application is critical in ensuring that the performance capability of the full assembly is achieved.

This standard is for you if you work in the Fenestration Industry and are involved in the selection of Fire Resistant Glazing sealants for on site installation work.

Performance Criteria

You must be able to:

1. comply with health and safety requirements and procedures at all times
2. contact suppliers using appropriate communication methods when you need additional information about sealants
3. obtain current versions of manufacturers' documentation about fire resistant glazing sealants from appropriate sources
4. use visual references to identify fire-resistant glazing sealants following manufacturers' documentation
5. confirm selected glazing sealants fit performance specifications and are compatible with glazed systems being installed
6. apply sealants following manufacturers and suppliers' instructions and information provided

Knowledge and understanding

You need to know and understand:

1. purpose and function of glazing sealants
2. how fire-resistant glazing sealants function in fire
3. why ordinary glazing sealants are not suitable
4. what an intumescent sealant is
5. what a non-intumescent sealant is
6. different generic categories of fire-resistant sealant types by function
7. manufacturers and suppliers for each named glazing sealant material by name
8. how to contact suppliers
9. importance of avoiding glass to frame contact
10. methods for fitting sealants into glazing pockets with glass
11. when and how to apply capping materials
12. when to use capping sealants
13. which capping materials can and cannot be used
14. particular procedures and details that apply for external systems
15. meaning and importance of compatibility of glazing sealants with other components
16. when and why extra care should be taken in using some sealants with some glasses
17. how to ensure that correct sealant to glass combination is followed
18. processes to follow if substituting one glazing sealant for another, including approvals and evidence of performance
19. important considerations when replacing old glazing sealants with new sealant

Assessor Comments/Feedback

GQAFEN25	Use of fire resistant glazing in timber screens and doors (Level 6 - Credits 6)

Overview

This standard is concerned with the use of fire-resistant glazing in timber screens and doors. You will understand the factors that influence the behaviour of timber on exposure to fire and how each of the component parts of a fire resistant timber system interact to provide the required levels of fire-resistance of a timber system.

This standard is for you if you work in the Fenestration Industry and are involved in on site installation of Fire Resistant Glazing into timber screens and doors

Performance Criteria

You must be able to:

1. comply with health and safety requirements and procedures at all times
2. follow assembly and installation guidelines and instructions to meet specifications
3. install systems that take account of bead types following standard operating procedures
4. apply timber treatments to meet specifications following standard operating procedures
5. obtain and refer to test, assessment and approval reports relevant to systems being installed
6. provide components to meet specifications
7. check completed installations meet specifications

Knowledge and understanding

You need to know and understand:

1. how timber behaves in fire
2. special requirements that apply for framed systems and doors
3. why type and species of timber is important
4. the importance of timber section thicknesses
5. the importance of installing systems of matched named components, including doors, all hardware and edge and frame smoke seals
6. function of timber beads and bead fixings
7. which bead fixings to use and how to fit them
8. glazing guidelines for fire-resistant glass, especially seal type and edge cover
9. requirements for glazing setting blocks and their function
10. attention to glass edge cover specification
11. requirements for impact rating of glass according to application
12. importance of not extending glazing apertures beyond approved sizes
13. importance of following glazing configurations and layouts provided
14. main factors that determine fire-resistance performance of fire resistant glazing in timber systems
15. special requirement of proprietary systems that achieve fire resistance classifications longer than 30 minutes
16. why provision for glazing expansion is important
17. importance of bead profile and types of timber for beads

18. types of treatments used on beads
19. risks of using surface treatments that are not approved
20. importance of not exchanging named components for non specified components without manufacturer's approval
21. why minimum edge cover limits are important
22. handling and glazing of double glazed units
23. checks made on systems following installations and how to make them
24. implications of making any changes to components within systems
25. how to confirm certified glass, seals and framing systems
26. requirements for sealing around installed systems and surrounding structures with approved fire stopping materials
27. importance of not modifying a factory-delivered door on site
28. importance of not damaging provided smoke and fire seals
29. importance of not cutting glazing openings in doors that are not designed for glazing
30. .how to recognise certified door sets and interpret certification labelling
31. additional requirements for glazed systems in 60 minute rated doors compared with 30 minute doors

Assessor Comments/Feedback

GQAFEN26	Install fire-resistant glazing in metal door and frame systems (Level 6 - Credits 6)

Overview

This standard is concerned with the installation of fire-resistant glazed systems in metal door and framing systems, and the installation of those elements. You will understand the important factors determining the fire behaviour of fire resistant glazing in metal systems and the important requirements concerning the installation of such systems.

This standard is for you if you work in the Fenestration Industry and are involved in on site installation work of Fire Resistant Glazing into metal door and frame systems.

Performance Criteria

You must be able to:

1. comply with health and safety procedures at all times
2. obtain and check specifications and assembly guidance from system providers appropriate for systems being installed
3. follow assembly and installation guidelines and instructions to meet specifications
4. interpret technical drawings and other installation details provided to meet specification
5. install systems that take account of bead type and fixing arrangements
6. obtain further information from the approval report for systems being installed
7. use handling and installation equipment following standard operating procedures
8. check and confirm completed installations are operating to meet specifications
9. contact manufacturers or suppliers using accepted methods to clarify requirements or confirm information

Knowledge and understanding

You need to know and understand:

1. what happens to steel and aluminium when exposed to fire
2. expansion of metal framing members
3. consequences of restrained expansion in fire
4. importance of installing systems of matched, specified components
5. glazing guidelines for fire-resistant glass
6. bead fixings to use and how to fit them
7. requirements for glazing setting blocks
8. differences between pressure glazing and other systems
9. approved and named glazing seals and how to use them
10. how to follow assembly and installation guidelines including information labels on glass when delivered
11. special requirements for systems classified for times longer than 60 minutes and up to 240 minutes
12. the importance of ensuring no metal to glass contact when glazed
13. the importance of not exchanging named components without manufacturer's approval
14. allowed edge cover requirements for glazing systems and their application
15. special requirements for external glazed systems
16. how to handle and install double glazed units
17. risks of applying excessive edge pressure in framing
18. how to install glazing without causing edge or face damage to glass
19. requirements for sealing joints between fire-resistant systems and surrounding structures using approved fire stop-ping materials

20. how to contact framing system suppliers to clarify technical issues and why this is important
21. checks to make on systems following installation and how to make them
22. what to do if any aspect of installation is not functioning correctly

Assessor Comments/Feedback

GQAFEN27	Use of fire resistant glass in individual systems (Level 6 - Credits 6)

Overview

This standard covers the use of fire-resistant glass in individual systems or applications that require special considerations in addition to those required for more conventional door or screen applications. Such systems and applications could include butt jointed vertical screen systems, overhead horizontal or inclined glazed areas, fire-resistant glazed rooflights set into a roof, or fire-resistant glazed floors (which may well involve large panes, multiple laminated elements and heavy glazed units). You will need to be aware of the special requirements of such applications and systems, and why special considerations have to be taken in each case, to ensure fitness for purpose in the event of fire.

This standard is for you if you work in the Fenestration Industry and are involved in on site installation work involving Fire Resistant Glass.

Performance Criteria

You must be able to:

1. identify need for special test evidence to suit applications and obtain it from relevant sources
2. identify the need for special performance requirements for applications and obtain information on them from relevant sources
3. provide authorisation from manufacturers to support installation of systems
4. follow defined installation and handling instructions and detailed system installation drawings
5. obtain existing test reports from reliable sources applicable to systems being installed
6. provide system drawings and system specifications following standard operating procedures
7. provide test evidence for systems and applications that are relevant and complies with applicable test standards
8. provide named components to meet specifications
9. install systems following relevant manufacturer's guidelines and instructions
10. obtain separate and specific authorisation for changes to glass, named components and glazing arrangements from glass or system suppliers
11. handle and manipulate heavy glazing units and framing members for floor and overhead systems following standard operating procedures

Knowledge and understanding

You need to know and understand:

1. relevant health and safety responsibilities and obligations
2. requirements that apply in working at height or overhead
3. procedures and requirements for the safe handling of heavy and large glass panes or units
4. regulations and codes of practice that apply
5. special standards for applications
6. requirements for specific test evidence for applications
7. glazing systems used, test reports available, and how to obtain them
8. why test evidence for use in vertical door and screen applications is not applicable to horizontal or inclined overhead use
9. the need for special test evidence that fits applications
10. why it is important to follow specific system designs and installation instructions.
11. special systems that require special considerations in use, handling, testing and installation
12. floors requiring specific test information for application
13. loading requirements for glass floors and the implications of heat transfer from fire into and through structures
14. methods used to support glass and how these vary according to applied loads for applications
15. butt jointed systems proprietary systems installed following responsible manufacturer's instructions

16. overhead applications that cannot be satisfied by evidence for vertical glazed systems
17. other safety requirements that apply to overhead glazing

Assessor Comments/Feedback

Notes

Notes

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