

Safety Action Notice

Reference: SAN2405

Issued: 19 September 2024

Review Date: 19 September 2025

Suitability of Georgian wired glass in fire doors for areas where there is an increased likelihood of injury, damage or attack

Summary

Fire doors and any sections of glazing are susceptible to damage in a range of environments and inappropriate repairs, or glazing specification can undermine the protection they provide in the event of a fire or present an increased risk of harm to patients from deliberate attack.

Action

1. Direct this notice to all appropriate managers, staff and users

2. Glazing type

Consideration should be given to the suitability of Georgian glass in fire doors when:

- investigating adverse incidents where the glass has been damaged
- planning new builds, refurbishments and ward moves

3. Assessing damaged glazing in timber fire doors

BS 8214:2016, *Timber based fire door assemblies*, should be used as reference document when assessing damage to glass in fire doors.

4. Fire rated glass replacement

- a) The fire door manufacturer should be consulted to determine whether replacement of the glass can be carried out on site.
- b) The recommendations of BS 8214:2016, *Timber based fire door assemblies*, should be adhered to in respect of competency of persons carrying out the replacement, compliance with manufacturer's installation specifications, and the display of glazing stamps.

5. Fire door replacement

- a) if there is inadequate information about fire certification or specifications of components, the complete door leaf or door frame should be replaced rather than repaired.
- b) engagement with local estates, fire officers, health & safety, infection control and clinical service users / occupants will be required to determine the most appropriate and compliant specification if there is uncertainty about the existing installation. This is particularly important in areas for high risk or vulnerable users.

Background Information

An incident occurred in which Georgian wired glass within a fire door was deliberately damaged by a patient in a mental health environment. The attack resulted in a serious wound, which together with other similar adverse incidents related to Georgian wired glass, has raised queries related to the use of this glass type in areas more susceptible to attack.

Incidents have been reported in a variety of patient environments and not mental health facilities alone. It is recognised that damage to this glazing type and resultant injuries are not solely due to mental health issues but from a range of challenging behaviours including but not limited to addiction issues, aggression or those experiencing acute confusion or delirium.

The incident also raised questions about what to do should the glass be damaged. This event was not an isolated one, with several adverse events reported where patients have sustained serious injuries when they have attacked, punched, or broken through wired glass panels.

The following therefore describes the process of assessing the ability to replace the glazing and to ensure the glazing type is considered to maintain the correct level of patient safety and fire protection for any patient environment. Content also notes guidance reference documents that help inform the decision-making process to ensure safe, appropriate and compliant replacement of glazing within the patient environment.

Repair to Fire Doors

The replacement of any component part of a fire door following damage is difficult as the certified performance of the door relies on the condition and compatibility of all components. British Standard 'BS 8214:2016, *Timber based fire door assemblies*, provides detail on repairs to fire doors including the various components that contribute to the overall performance of the fire protection and should therefore be used as reference document when assessing any damage to a fire door.

BS 8214:2016 notes:

"It is not easy to repair doors and maintain the interactive behaviour of the various component parts, except for minor repairs, which should only be undertaken with the approval of the door manufacturer. When any other damage is detected, the complete door leaf or door frame should be replaced."

Fire Rated Glazing Installation / Replacement

In the incident described; it is the replacement of glazing specifically that has been queried. Whilst acknowledging the difficulties in repairing damage to fire doors, BS 8214 does include notes on the replacement of glass as follows:

"The door manufacturer should be consulted to determine whether or not replacement of the glass can be carried out on site" and that "Replacement work should be carried out by a competent person."

A competent person is identified as:

"glaziers that operate as a member of a third-party certification scheme for fire rated glass installation".

BS 8214 describes a preference that glazing installation should be carried out in the factory. In the scenarios presented, it is most likely that on site replacement would be preferred. Therefore, BS 8214 further notes that:

“If glazing on site into factory-prepared apertures is unavoidable then the glazed system should be installed exactly as specified by the door manufacturer, indicating the named components and any particular glazing conditions or arrangements that apply as determined from the applicable test evidence.”

Where glazing replacement is possible and works are to be carried out by an appropriate glazier, further guidance is provided related to ‘glazing stamps’ and what should be displayed as part of the installation works is also noted in BS8214.

Fire Door Replacement

Much of the above relies upon information provided by the door manufacturer. It is however acknowledged that in some instances where damage has been caused to a fire door, that the door manufacturer may not be known, may no longer exist and that there is not supporting record information. Through information such as glazing stamps, local knowledge, and evidence from the damaged door, it may be possible to determine the exact glazing type for replacement as well as associated components such beads, bead fixings, glazing sealant/gaskets etc. However, unless there is certainty of all components and that fire certification can be provided, it is recommended that the complete door leaf or door frame should be replaced.

When replacing the door with elements of uncertainty about the existing installation, engagement with local estates, fire officers, health and safety, infection control and clinical service users / occupants will be required to determine the most appropriate and compliant specification, particularly in areas for high risk or vulnerable users.

Glazing Type

The suitability of Georgian wired glass within certain patient environments has been queried. It is acknowledged that the incidents reported are not related specifically to mental health environment but rather areas where there may be challenging behaviour and the increased potential for the glass be to subject to vandalism or malicious damage. Guidance related to mental health environments has been included as it best considers challenging behaviour related to glazing.

NHS Guidance that includes considerations related to glazing, door sets and mental health environments are as follows and should be utilised for any assessment related to informing the most appropriate glass type:

- [SHTM 57: Internal Glazing](#) (Dec 2006)
- [SHTM 58: Internal Doorsets](#) (Dec 2006)
- [HBN 03-01: Adult acute mental health facilities](#) (Oct 2014)
- [HBN 03-02: Children and adolescents mental health facilities](#) (Sep 2018)

SHTM 57 describes the properties of both Toughened (tempered) glass and Laminate glass to inform decision making. Similarly, HBN 03-01 also refers to both in the context of how they react to attack, again this should be used to inform decision making.

SHTM 58 has been included as a reference document as there will be scenarios where damage to the fire door will require full replacement of the door leaf or door frame. In such cases, engagement recommended to determine the most suitable and compliant glazing should also be applied to the selection of the door type where elements such as fire resistance, smoke containment and robustness are considered.

Further documents and information related to mental health facilities are included in the references section. They are included as they further reference the variety of glazing types, properties and consideration to the extent of glazing within this specific environment as well as other factors related to product selection the mental health built environment.

Suggested onward distribution (may not include all affected departments)

Healthcare Specialties & Depts

Emergency Department
Mental Health Services
General Dental Practitioners
General Medical Practitioners
Health Centres
Wards

Corporate and Support

Health & Safety
Risk Management
Safety Representatives
Supplies/Procurement

Hard FM

Capital Planning & Design
Estates Management
Facilities Management
Fire Safety Advisors
Nominated Officer Fire
PFI / PPP staff

Local Authority & Social Care

Adult Social Work Services
Adult and Children's Residential Services
Care Homes
Children's Social Work Service
Health, safety and wellbeing
Property Repairs

References and other resources

1. BS 8214:2016 – TC, Timber-based fire door assemblies. Code of practice
2. [SHTM 57: Internal Glazing](#) (Dec 2006)
3. [SHTM 58: Internal Doorsets](#) (Dec 2006)
4. [HBN 03-01: Adult acute mental health facilities](#) (Oct 2014)
5. [HBN 03-02: Children and adolescents mental health facilities](#) (Sep 2018)
6. [Report on Self Harm Reduction](#): Self Harm Reduction Report. Data analysis, assessment tools and environment.
7. [Information Message - IM/2020/012](#): Informed Choices: Testing Guidance for Products in Mental Health.

Information about IRIC

Incident Reporting & Investigation Centre (IRIC), Facilities Division, NHSScotland Assure
NHS National Services Scotland, Tel: 0131 275 7575, email: nss.irc@nhs.scot

Accessibility: Please contact us using the above details if you are blind or have a sight impairment and would like to request this alert in a more suitable format.

IRIC remit: general information about adverse incidents, safety alerts and IRIC's role can be found in [CEL 43 \(2009\)](#), *Safety of Health, Social Care, Estates and Facilities Equipment: NHS Board and Local Authority Responsibilities*, issued 30 October 2009.

To find safety alerts:
scan the QR code or [click this link to visit our website](#)



To report an incident:
scan the QR code or [click this link to visit our website](#)



NHS National Services Scotland is the common name for the Common Services Agency for the Scottish Health Service <https://www.nss.nhs.scot/>