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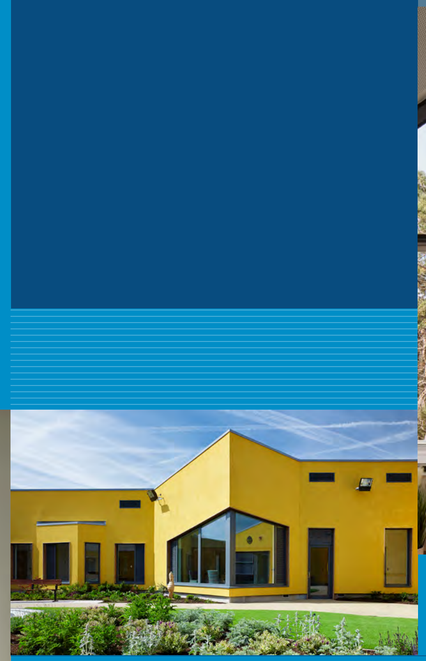

RESEARCH REPORT

Choosing windows for mental health environments

2026

"Together we can continue to make improvements that support the recovery of service users and help ensure the safety and wellbeing of everybody using, working within, or visiting a mental health environment."

KEVIN GORMAN – CHAIRMAN, BRITPLAS

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Foreword

Most of my career has been dedicated to improving the design, manufacture and installation of windows for mental health facilities, both in the UK and internationally.

Prior to the invention of our Safevent window, those specifying windows for psychiatric settings were faced with very limited choices. The various options available gave very little natural ventilation and had an institutional feel or were ‘Heath Robinson’ domestic type windows with bars or restrictors added. They left a great deal to be desired.

The sliding sash/mesh window that has become the benchmark product for secure mental healthcare facilities in the UK solved many of the problems which had been encountered by those working in these environments. It gave service users a degree of control over their environment, allowing natural daylight and massive amounts of natural ventilation whilst also providing the high levels of robustness and safety required for this most challenging of environments.

Over the past two decades, we have been privileged to work with some wonderful clients and partners from all over the world, each dedicated to the provision of safe and therapeutic spaces for some of the most vulnerable people in our society.

We have been able to develop wide ranging experience and knowledge on the design, manufacture, installation and ongoing performance of windows for mental health settings whilst working alongside these dedicated professionals.

It is against this backdrop that we decided to create this research report; as far as I am aware, it is the first time that such a guide has been collated.

In putting this report together, we have reviewed the regulatory landscape, summarised the current scenario with regards to testing and also, crucially, undertaken our own quantitative and qualitative research among those professionals currently at the forefront of specifying and procuring mental health windows in the UK.

We have also used our own experience to highlight other important safety considerations (like the ceramics and glass section on page 9).

If you are reading this report then I presume you are currently involved in the selection or provision of windows within a mental health environment. I hope this document helps you to make informed decisions. Together we can continue to make improvements that support the recovery of service users and help ensure the safety and wellbeing of everybody using, working within, or visiting such a facility.

Finally, I would like to thank all those who took part in our research, either as survey respondents or interviewees. We are grateful for your contribution and hope you enjoy reading the report.

Kevin Gorman
Chairman, Britplas

The regulatory landscape

In addition to Building Regulations[1], window specification for NHS mental health facilities in the UK is covered by various sets of guidance issued by the Department of Health.

These include several Health Technical Memoranda (HTMs)[2], Health Building Notes (HBNs)[3] and Design Guides[4] (which tend to be more specific).

The guidance contained within HBNs and Design Guides can be summarised as:

Design and structural safety

- **Durability and robustness:** Window frames should be constructed from robust materials to withstand damage, with all fixings concealed.
- **Tamper resistance:** Glazing beads must be anti-vandal, secured with tamper-resistant fixings, or have other methods to prevent the glazing from being removed.
- **Anti-ligature design:** Opening vents and opening mechanisms must minimise ligature risks, with secure ventilation and restricted operation mechanisms (e.g., anti-ligature handles).

Whether it's a new build or a refurbishment, a window will only perform as intended if it's installed into a properly designed structure.

Security and risk mitigation

- **Contraband prevention:** Secure meshes may be installed on window openings to prevent the passage of contraband.
- **Integrity against escape:** Windows must be rigorously tested to ensure they meet minimum requirements to help prevent unauthorised escape/entry.

Therapeutic and wellbeing considerations

- **Natural light and ventilation:** Windows should support a therapeutic environment by offering natural light, fresh air, and external views. Larger window designs that allow more natural light, natural ventilation, and patient control should be encouraged.
- **Privacy options:** Where appropriate for the user group, solutions like patient-controlled integral blinds or other mechanisms should ensure privacy and dignity while avoiding ligature risks.

Compliance and maintenance

- **Windows must meet relevant British Standards and safety codes**, and align with fire safety and energy efficiency requirements as a minimum. They should also support ease of cleaning and maintenance, without compromising the safety and security of the design.

Health Technical Memoranda include similar guidance around the importance of windows in contributing to the therapeutic environment and general patient wellbeing and safety.

They also highlight the importance of window design in contributing to ventilation, sustainability and fire safety as shown on the right.

Ventilation strategies

- **Natural ventilation priority:** windows should support natural ventilation as the first choice, with mixed-mode systems (natural and mechanical) as a secondary option. This aligns with sustainability goals, including the UK's net-zero emissions target by 2050.
- **Compliance with standards:** Window design must consider standards like BS 5925, CIBSE Applications Manual AM10, and Health Building Notes 00-10 Part D and 03-01 to ensure effective natural ventilation.

Sustainability

- **Energy efficiency:** Windows should contribute to reduced energy consumption and support compliance with BREEAM Healthcare standards, aiming for high ratings ("Excellent" for new builds, "Very Good" for refurbishments).
- **Materials and lifecycle:** Window materials should be durable, sustainable, and minimize environmental impact over their lifecycle, including maintenance and disposal.

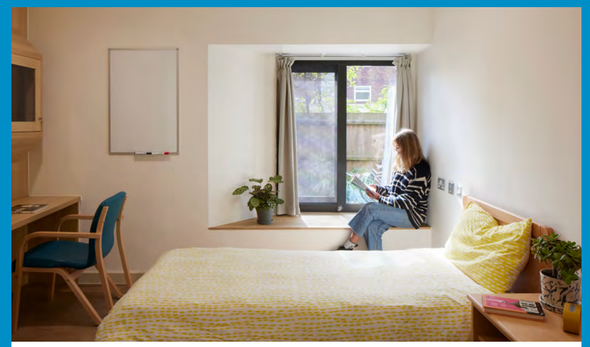
We should also note here the NHS Net Zero Building Standard. Published in Feb 2023, it provides technical guidance to support the development of sustainable, resilient, and energy efficient buildings. These are considerations which must sit alongside the overarching requirement for security, robustness and service user safety within psychiatric facilities.

It applies to all investments in new buildings and upgrades to existing facilities that are subject to HM Treasury business case approval process.

Fire safety

- **Integration with fire safety design:** Designs must address fire risks in mental health facilities, with additional precautions if necessary. Design should align with fire safety strategies outlined in HTM 05-02, or engineered solutions, ensuring compliance with Building Regulations and minimising fire spread risks.

The four key themes highlighted by our research are:



1. Safety first

2. Balancing requirements

3. Lack of standardised testing

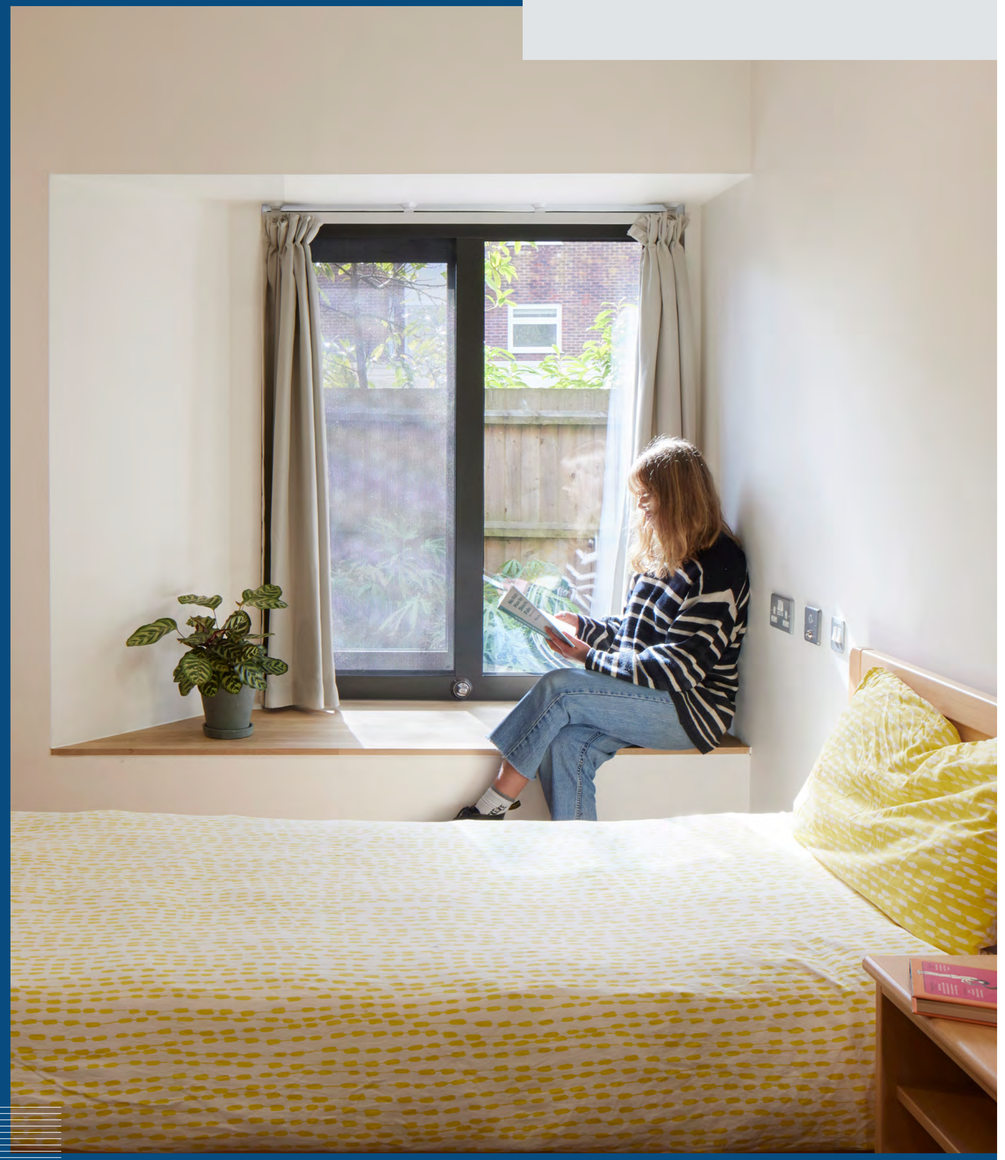
4. Future developments

KEY THEME 1:

Safety first

“It’s all very well people saying “our windows are safe” but I like to see the testing... once they’re damaged there’s a whole lot that could go wrong for that patient and the staff”

NHS PROJECT MANAGER (ESTATES)



Safety first

Perhaps not surprisingly, service user safety emerged as the top priority when selecting windows for patient bedrooms, with 67% of our survey respondents ranking this as their number one priority.

As a weighted average, only general robustness came close in terms of importance, with 65% of respondents ranking this as their second most important consideration.

Safety was also considered a key area for design development over the next 10 years, with 40% of respondents ranking this as the number one area for development.

As we have already seen, the regulatory landscape around windows for mental health facilities also reflects an emphasis on ensuring safety as a primary concern, as would be expected.

In the context of window design, achieving optimum safety includes minimising the risk of service users being able to fix ligatures and/or utilise parts of fixtures and fittings as weapons. These may represent danger not only to the service user, but also to fellow service users, staff and visitors to the facility.

We have omitted in-depth discussion here of the possible means by which ligatures may be attached to a window for obvious reasons, however we are happy to share our knowledge directly with any specifiers or clients who may wish to request it.

Sadly, there were 1,052 mental health in-patient deaths by suicide in 2011-2021. Of the 342 patients who died on the ward, 37 (11%) were by asphyxiation and 272 (80%) were by hanging/strangulation, i.e. by using a ligature[5].

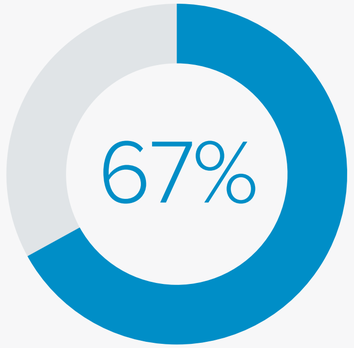
Choosing a robust window, particularly for a patient bedroom, is a key factor in ensuring the safety of service users and staff. Safety and robustness are hugely interdependent factors; if the window can be broken or dismantled due to weakness in its structure, then service users can potentially use parts of the window for self-harm or as a weapon.

Incidents of violence and aggression in UK mental health hospitals continue to be a significant concern. The most recent available data suggests that such incidents remain frequent, with mental health trusts reporting high levels of physical assaults against both patients and staff.

NHS figures for the period highlighted over 38,000 assaults against staff in mental health trusts in 2021-2022, a majority of which occurred in psychiatric inpatient settings. Many of these incidents involved individuals experiencing severe mental health crises.

Damage to a window may also allow the passing of contraband into a building, and may provide an opportunity for absconsion.

It is clear that safety is, and will rightly remain, the number one priority for those specifying windows for use in mental health environments.



67% of survey respondents rated patient user safety as the most important consideration when choosing windows for mental health environments.

1,052

There were 1,052 mental health in-patient deaths by suicide in the UK in the period 2011-2021.

SAFETY SPOTLIGHT

Ceramics and glass

There are many specifications of glass to choose from depending on the requirements of a facility. One thing they have in common is that none of them react well with ceramics.

The threat that ceramics pose to glass may not be widely known amongst clinicians and estates staff, so this section is aimed at going some way to change this.

When visiting some mental health hospitals, it may not be uncommon to find staff and service users utilising ceramic cups, saucers and plates.

We would strongly advise against the presence of any ceramics in mental health facilities. Apart from the danger of them being broken and used for self-harm, or as a weapon; there is the inherent danger of them being used to break the glass of windows, doors, nurse stations, etc.

Ceramics have a unique reaction with glass which can cause it to break with very little effort. This phenomenon is due to the direct contrast in the properties of ceramics and glass.

“The threat that ceramics pose to glass may not be widely known amongst clinicians and estates staff.”

SAFETY SPOTLIGHT

Ceramics and glass

Glass is an amorphous solid. Its molecular structure lacks the ordered, crystalline features present in most solids. When created from molten sand and other ingredients, it is cooled rapidly and the disordered molecules ‘freeze’ in place resembling a ‘snapshot’ of a liquid (hence glass previously being referred to as a “supercooled liquid”).

Toughened glass, which is most commonly used in high-risk situations because it shatters into small blunt pieces rather than dangerous shards, is created by heating sheets in an oven and rapidly cooling them which causes the outside of the glass to compress. The compressive layer becomes the strongest part of the glass, which is akin to its armour. It is approximately 21% of the thickness of the glass.

Therefore, the thicker the piece of glass, the thicker its compressive layer, the stronger the piece of glass. The disordered molecules in glass are contained within those strong layers, with much heightened potential energy.

Ceramics are typically extremely hard; made by firing a non-metallic mineral, such as clay, at high temperatures. This produces an incredibly hard and durable crystalline structure. When a ceramic object hits glass, the fracture mechanics at the point of contact can prove overwhelming for the compressive layer. Once the compressive layer is breeched, the pent-up energy in the core of the glass shatters.

A demonstration of ceramic’s ability to breach glass is its incorporation in emergency window breakers. These tools use a small, sharp ceramic tip to break car/train/bus windows, quickly and easily, to allow egress in the event of an emergency. Whilst sharpened steel can also be used in emergency window breakers, ceramic tips are often preferred because they require much less force to break the glass. The sharpness and hardness of ceramics allow it to penetrate and shatter the glass more efficiently. Police and special forces utilise ceramic tools to breach glass to swiftly enter buildings.

As there are clearly safety implications of not being able to breach the glass when needed, the reverse is equally true for glass used in secure mental health environments. The most effective way of ensuring the safety and security of service users, staff and visitors is to utilise alternative tableware in high-risk situations.

“Police and special forces utilise ceramic tools to breach glass to swiftly enter buildings.”

KEY THEME 2:

Balancing requirements

“First and foremost it has to reduce overall ligature risk from our existing windows... a very close second to that is about giving the patient access to fresh air... we feel it’s really important that a patient can access and control the amount of fresh air they have in the room themselves if possible”

NHS PFI TECHNICAL MANAGER (ESTATES)

Balancing requirements

Both the qualitative and quantitative segments of our research highlighted that there remains a delicate balance between not only safety and therapeutic considerations, but also practical considerations and general performance criteria as UK Building Regulations move towards net zero targets.

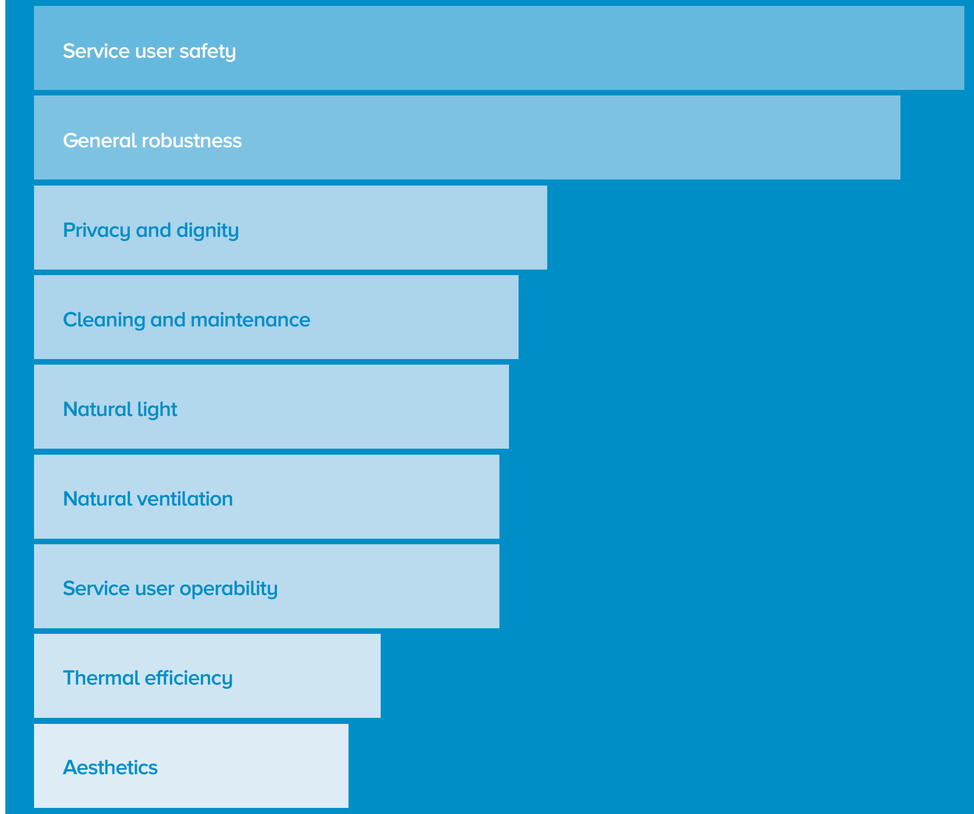
The graph on the right shows how our survey respondents ranked the importance of various factors in selecting windows for mental health patient bedrooms, as weighted averages.

We can see that after the two key priorities of service user safety and general robustness, the majority of the remaining factors are bunched in a very similar region - reflecting the slightly different weightings given to them by different professionals from varying disciplines.

Respondents also added various other considerations to this list including airtightness, cost and ease of repair/ replacement.

Some of our interview respondents spoke of the challenges associated with trying to achieve a window design that answers both stringent safety requirements, therapeutic concerns around natural light, ventilation and operability, and increasingly tough performance criteria including acoustic and thermal capabilities, whilst also considering cost and other practical considerations like maintenance and repair. These different and occasionally conflicting dimensions are examined in more detail on the following page.

Our survey respondents ranked the importance of various factors in selecting windows for mental health patient bedrooms (as weighted averages)



Balancing requirements

Therapeutic concerns

The profound influence of natural light on human health is widely accepted and numerous studies have found evidence of its critical role in patient recovery and overall wellbeing. As well as improving mood and reducing depression, natural light helps to regulate circadian rhythms, improving sleep patterns.[6]

For people who spend a lot of their time indoors, like mental health patients, the psychological and physical need for daylight is vital, with light exposure having a positive impact on stress hormone levels and studies suggesting that window access and outdoor views can improve recovery times as well as general wellbeing.[7]

Natural ventilation and, critically, the ability of patients to control their own ventilation, is also an important therapeutic consideration, with our survey respondents ranking it as important as natural light in the selection of windows for mental health bedrooms.

The provision of natural light and ventilation may not be always easily compatible with the requirement for secure windows, however. One interview respondent referred specifically to the fact that the substantial and heavy frames which tend to be required to ensure optimum product robustness do not always sit well with architects' design intent for new facilities.

Frames obviously take up aperture space and reduce light transmission; this may be more of a problem in older buildings where window apertures may well be quite small in the first place.

Mesh hole size must also be carefully considered to ensure maximum light transmission without compromising on product robustness or increasing the ligature risk.

Another interviewee spoke of the conflict between the aims of getting maximum natural light into a bedroom, whilst also preserving patient privacy and dignity. On the other side of this issue is the requirement, in some cases, for blackout blinds to allow longer periods of undisturbed sleep.

Window operability is also an important therapeutic concern; providing the patient with an element of control over their own environment is critical in reducing the 'institutional' feel of a mental health bedroom.

Performance criteria

An engineering director noted that the stringent requirements of the latest update to Part L Building Regulations (which encompasses new U-values for windows to minimise energy consumption and carbon emissions) make it very difficult to achieve full compliance with an anti-ligature window, leaving him with a choice of only a single product supplier in some instances.

In addition to thermal efficiency, windows may need to meet specific requirements around air permeability, acoustic performance and light transmission.

Practical considerations

The ability of windows to provide natural ventilation within mental health facilities is both a practical and a therapeutic consideration. Windows provide service users with access to fresh air (over which they can have a degree of control) and natural ventilation is also referred to in Department of Health guidance as being preferred over mechanical options.

One interviewee referred to the challenges of maintaining a pleasant environment in bathroom areas of an existing mental health facility, where they were hopeful that new windows would help to disperse excessive moisture.

Practical considerations also encompass the ease of cleaning and maintenance of the window. Requirements here range from standard cleaning and servicing of moving parts, to dealing with the results of service user behaviour including physical damage and food or other substances thrown at windows. Window manufacturers have developed a number of specific features in recent years to make window mesh more accessible or removable in order to assist with the challenges of cleaning and disinfection. Consideration must be given to maintaining the secure line of the building if mesh is removable.

Balancing requirements

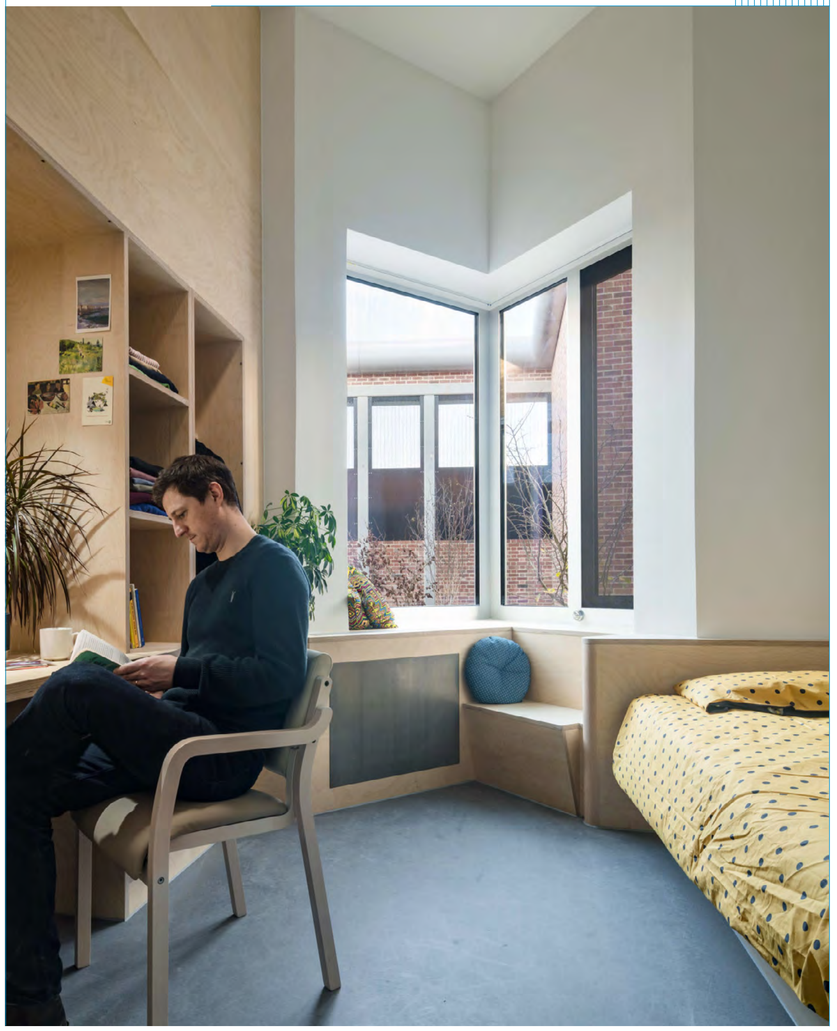
A further practical consideration comes from the fact that windows tend to be installed by the company that manufactured them in order to ensure optimum safety and security. Specifiers must therefore be confident not only in the product itself, but also in the ability of the manufacturer to install to the highest standards whilst remaining sensitive and responsive to the demands of a live environment.

When our survey respondents were asked to rank items in order of priority when selecting a window supplier for mental health settings, installation expertise and experience working in live environments was the second most important consideration after product quality.

The picture that emerges from our survey is one of a delicate balance between sets of quite different and occasionally conflicting requirements.

The weightings of the criteria referred to vary not only between projects, as things like user groups, and whether the project is a new build or refurbishment must be considered, but also between different stakeholders involved in the same project. As you would expect, a clinician is likely to place a higher emphasis on therapeutic concerns than a maintenance manager, who in turn may be more interested in ease of cleaning and repair.

What is clear is that with such complex requirements to consider, it is critical that suppliers have an in-depth knowledge of the challenges involved and how to overcome them. We recommend that early engagement with the specialist supply chain is critical to ensure that windows meet the unique set of requirements associated with any particular project. Specifiers must also be confident in the ability of their supplier to carry out installation and aftercare to the highest standard in what can often be challenging working environments.



REQUIREMENTS FOCUS

Window construction

Windows for general mental health environments have traditionally been adapted domestic windows, or in some cases, actual domestic windows. It was commonplace to find top/side hung casement windows in uPVC, aluminium, and timber.

To prevent the sash from opening more than 100mm, windows were often fitted with internal beading and screwed-on restrictors. However, the internal beading presents a significant problem: anyone with experience installing windows will know how easily the beads can be removed, creating an opportunity for escape or increasing the risk of a fall from height.

Several steel window options were available from various companies and used in higher secure environments. These tended to have small side hung opening sashes that kept the opening to less than 4”/100mm. However, this design style meant that it was an obvious step to attach a ligature, as it is a fundamental risk with all of these awning type frames.

In addition to these design issues, there are multiple factors to consider with each material (excluding a number of other factors such as thermal performance, finishing options, acoustics etc).

Wood requires regular treatment, such as painting or staining, which makes ongoing maintenance both costly and time consuming. There is also a risk of service users obtaining splinters that could be used as a weapon or for self harm, although selecting an appropriate timber type can help reduce this risk.

Steel windows are prone to rust and look unsightly over time if not proactively and reactively maintained. There is the added issue that the oxidation can completely undermine the strength of the windows and consequently, could create ligature or escape issues. This was found to be the case in a recent window replacement at a secure hospital in the UK.

For many years, uPVC was widely used, and our first Safevent Window was manufactured from uPVC. However, we no longer manufacture uPVC windows for mental health environments, as we no longer consider them to be an appropriate solution.

Over the 20 years that we have been providing solutions, the acuity of patients appears to have increased year on year, and continues to do so. Although the windows we previously installed have delivered effective solutions for many hospitals and have successfully passed Annex B testing on numerous occasions, we recognise that they are less robust than our aluminium and steel hybrid alternatives.

KEY THEME 3:

Lack of standardised testing

“The problem is the test is... quite variable because the size of person undertaking the test can determine how hard they hit the hammer on the glass and... that can be the difference between pass or fail so I think the biggest problem we have is the testing standards need to be standardised a bit more to stop these variances”

ENGINEERING MANAGER
(MAIN CONTRACTOR)

Lack of standardised testing

Product testing for mental health environments presents significant challenges. Despite recent efforts to establish a more comprehensive framework of standardised testing protocols, our research indicates that consistent, reliable testing in this sector remains a complex issue.

Until recently, the only recognised testing criteria specifically for products to be used in secure mental health facilities in the UK was that specified within Annex B of the ***Department of Health Environmental Design Guide Adult Medium Secure Services*** (along with the HSBDG for High Secure Services). This has become the de facto test for all mental health environments where security is a concern (excluding High Secure Services).

The recommended testing includes (amongst other things) an attack using a 1.2kg mallet to simulate punching, kicking, then the use of a paving maul to simulate full body impacts.

A key potential issue with this type of testing was highlighted in our interviews by an engineering manager from a main contractor who pointed out that results can vary hugely depending on who is delivering the impacts.

Having recognised this when we first started working in the sector, Britplas, as founding members of the Design in Mental Health Network (DiMHN) we put in place the partnership with the Building Research Establishment (BRE) to standardise measurable repeatable testing for products to be used within mental health environments. Over the past few years, in consultation with industry and in collaboration with the DiMHN, the BRE has worked with over one hundred experts from the field to create a global testing method for all products used in mental health.

Informed Choices: Testing Guidance for Products in Mental Health Facilities[8] provides testing methodologies for materials, fixtures and hardware that have been specifically designed for use within mental healthcare facilities. It aims to bring together the many disparate requirements for these products into one document to help suitably qualified experts to choose the most appropriate product.

This is a relatively recently launched initiative, and one which we are pleased to have been able to support, which it is hoped will provide a structured assessment for self-harm risks using an independent and standard approach. It is not without its teething problems.

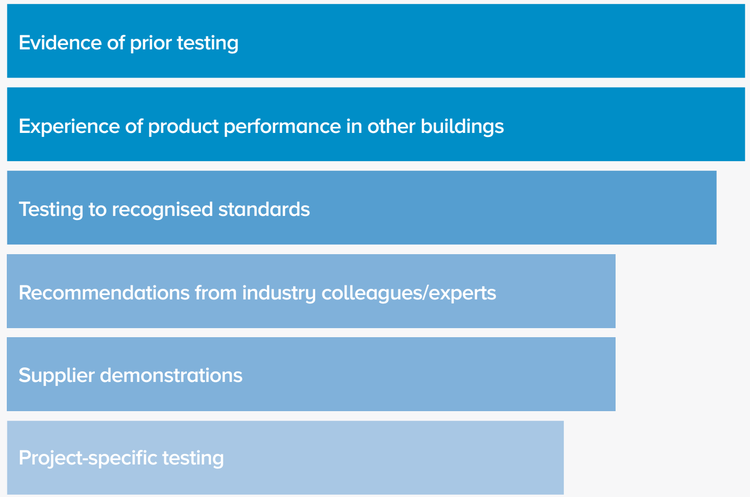
Security-specific testing and testing to British Standards may also be considered relevant by specifiers.

90% of respondents in our research survey said that they always look at evidence of prior testing when assessing windows for mental health environments. In our experience, most organisations with a responsibility for selecting windows for mental health facilities carry out their own testing, either at organisational level or in some cases for specific projects. One survey respondent noted: “As a trust we always have a mock up room and test (the window) ourselves for robustness”. Another referred to the use of “our own specialist evaluation team and organisational learning from incidents.”

As with other considerations, there is no simple solution here. Attempts to standardise testing cannot always take into consideration the complexities associated with specific user groups in specific settings and learnings gleaned from years of unique organisational experience.

While we fully support efforts to produce a more standardised set of test criteria for products used in mental health environments, suppliers must continue to work with their clients to ensure that products are fit for purpose and meet any organisational or project-specific standards.

Graph showing responses to the question *‘How does your organisation normally assess windows when specifying products for mental health environments?’* as weighted averages



90% of respondents said that they always look at evidence of prior testing when assessing windows for mental health environments.

KEY THEME 4:

Future developments

“We’re looking for suppliers’ carbon reduction plans... So that is becoming more and more important as well for all suppliers.”

ESTATES & FACILITIES (PRIVATE SECTOR)

Future developments

The development of window design in the mental health sector continues at pace, with significant strides having already been made since the first iteration of the sliding sash/mesh window in terms of safety, therapeutic, practical and performance considerations.

Future development of window design is likely to continue to encompass all of these strands, however as we have already seen, the new Part L Building Regulations have set new standards for new and existing buildings' energy performance and carbon emissions which manufacturers and specifiers are already having to respond to. These include:

- **New carbon emissions targets:** New non-domestic builds need to produce at least 27 per cent less carbon emissions.
- **New minimum energy efficiency standards:** new U-values apply to walls, windows, roof lights and doors, to minimise energy consumption and carbon emissions.

The new ***NHS Net Zero Building Standard***, introduced on 22 February 2023, will also inevitably help to drive the development of window design. While the Standard does not prescribe specific requirements for windows, it emphasises the importance of reducing operational energy use and enhancing building performance.

Window design in new NHS facilities will need to focus on optimising energy efficiency, minimising heat loss, and maximising natural light to align with the Standard's objectives.

It is not an easy task to balance improved thermal efficiency with slimline window frames and still fulfil the complex set of requirements associated with mental health windows, within realistic budget constraints.

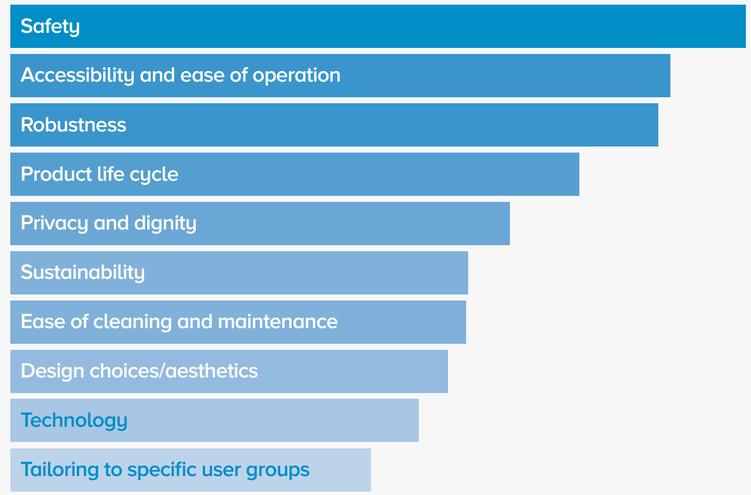
Manufacturers must respond to this challenge, and also provide practical data around product lifecycle costs and other sustainability criteria in order to support the UK's commitment to the net zero target.

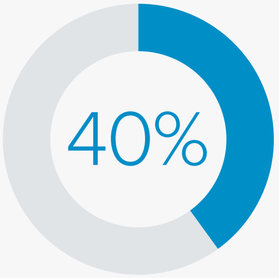
In this context, it is essential that manufacturers stand behind verified U-value data with full transparency. Independent testing and certification should be the norm, not the exception, to ensure that claims around thermal performance are both accurate and accountable. As procurement decisions increasingly align with fabric-first strategies and low-carbon technologies, specifiers must be confident that the data they rely on will stand up to scrutiny - particularly where energy performance is concerned.

The technical demands of the manufacture and installation of windows for secure environments coupled with high R&D costs have tended to create a quite restricted market, as noted by several of our research respondents. As these technical demands increase, it seems unlikely that this somewhat niche market with limited commercial potential is likely to drastically change in the near future. As service user safety is by far and away the highest priority, supplier credibility and reputation seems to count for a great deal with specifiers and stakeholders.

Our survey respondents ranked safety as the most important development over the next 10 years, presumably reflecting the general emphasis placed on this characteristic, with accessibility and ease of operation, robustness and product life cycle considerations as the next most critical improvements.

Graph showing responses to the question *'Please rank the following according to what you think will be the most important developments in mental health window design over the next 10 years'* as a score





40% of survey respondents rated service user safety as likely to be the most important development in mental health window design over the next 10 years.

Conclusions

The design and selection of windows for mental health environments is centred around a challenging interplay of safety, therapeutic, practical, and regulatory considerations.

Safety remains the number one priority. Robustness, as a close second, highlights the importance of durability in preventing self-harm, injury, and other risks associated with secure environments. These intertwined priorities underscore the critical role windows play in ensuring the safety of service users, staff, and visitors while contributing to overall patient wellbeing.

The importance of natural light and ventilation to therapeutic outcomes cannot be overstated. Studies consistently show that access to natural light improves mood, regulates circadian rhythms, and positively impacts recovery and wellbeing. However, achieving this balance is complex, particularly whilst also trying to preserve patient privacy and dignity. Window operability, offering patients a sense of control over their environment, further complicates the balance between therapeutic needs and institutional safety requirements.

Performance criteria, including compliance with updated Part L Building Regulations, have introduced new complexities for window design. Stricter U-values aimed at reducing energy consumption and carbon emissions are difficult to reconcile with the needs of anti-ligature windows. Acoustic, thermal, and air permeability performance standards must also be met, requiring innovative engineering solutions. The NHS Net Zero Building Standard adds further impetus to these efforts, pushing manufacturers to optimise energy efficiency and sustainability without compromising safety or therapeutic outcomes.

While we support, and indeed have been integral to the creation of **global testing methods**, such as those in *Informed Choices: Testing Guidance for Products in Mental Health Facilities*, we believe that initiatives such as this require stronger support in the sector and that individual organisational testing and shared learning from incidents is likely to remain essential to address specific user group needs.

In conclusion, window design for mental health facilities must navigate a delicate balance of safety, therapeutic, practical, and regulatory demands. Early engagement with specialist suppliers, combined with continued innovation and collaboration, will be crucial to meeting these multifaceted challenges while supporting the sector's broader objectives, including the UK's net zero commitment.

About our research

To fully understand the factors which influence the choice of windows in mental health environments we undertook a quantitative and qualitative research study with key decision makers and influencers in the sector.

Sample and methodology
The study consisted of a two-stage research process:

1. Quantitative online survey

For the **quantitative** online research, potential participants were invited via email to complete the survey online.

Those invited to participate were a mix of existing Britplas clients and individuals who we had not previously engaged with commercially. A total of 46 individuals completed the survey.

Areas of responsibility of survey participants included Capital Projects, Clinical, Commercial, Design, Estates & Facilities, Health & Safety, Procurement and Project Management.

2. Qualitative one-to-one in-depth interviews with key decision makers

In addition, in depth one-to-one **qualitative** interviews were conducted with individuals in the following roles:

- Estates & Facilities x 3
- Project Management x 2
- Procurement x 1
- Capital Projects x 1
- Design x 1

Interview respondents were drawn from a cross-section of organisations, including NHS trusts, private healthcare providers, main contractors and consultants.

About Britplas

Britplas is a leading innovator and fabricator of specialist fenestration solutions designed to address the unique challenges of secure environments. The company is recognised for the expert design, manufacture, and installation of all its products, ensuring end-to-end quality and performance.

The core public sector portfolio includes the proprietary Safevent window, Fortress 80 Fencing, and Climb-Guard anti-climb system as well as secure external doors and curtain walling - solutions developed to enhance safety, security, and user well-being.

Since the introduction of the Safevent window nearly two decades ago - engineered to deliver controlled natural ventilation, daylight access, and robust security, Britplas has been at the forefront of innovation in secure environment fenestration.

Its solutions have contributed to improved safety, comfort, and quality of life for service users across thousands of projects, both in the UK and internationally. Having been a market leader in the mental health sector for some two decades, Britplas is currently collaborating with the Ministry of Justice, the Four Alliance, the Home Office, the Department for Education and secure children's facilities to support critical infrastructure needs.

In addition to its secure environment products, Britplas continues to expand its portfolio to include commercial fenestration systems such as curtain walling, casement windows and doors for large-scale commercial developments.

With a proven track record of successfully delivering projects of varying scale and complexity, Britplas remains a trusted partner for new-build and live-environment upgrades in secure settings.

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