

# Make today's decisions count tomorrow



A BWF Timber Window Accreditation Scheme Fact Card on

## SPECIFICATION

Including:

- Regulatory Standards
- Aesthetics
- Security
- Low Maintenance
- Energy Efficiency
- Sustainability
- Cost

When specifying windows & entrance doorsets, it is important that you get it right from the outset so they last much longer and require far less maintenance. To help you choose the right products, this fact card will explain the key elements and assist you in making informed decisions.

### Regulatory Standards

Building Regulations cover all aspects of a building's design to ensure compliance with the Building Act 1984. These Regulations are divided into Parts A to P, with corresponding Approved Documents providing guidance on how to meet the requirements of that Part. Compliance with the Approved Documents is not strictly mandatory, although if you divert away from the requirements, you have to prove how you meet the requirements of the Regulations.

The Approved Documents that are relevant to windows & entrance doorsets include B (Fire safety), F (Ventilation), L (Conservation of fuel & power), M (Access for the disabled) and N (Glazing - safety in relation to impact, opening and cleaning).

The main British Standard for timber windows is BS 644, "Timber windows - Factory assembled windows of various types - Specification" and for doorsets is PAS 23, "General performance requirements for door assemblies". Both these Standards refer to a number of other Standards and Codes of Practice.

The simplest way to ensure that windows & entrance doorsets meet all the necessary requirements is to specify those that are independently certificated and tested. Certification takes into account all the relevant Building Regulations and British and European Standards.

## Aesthetics

Windows & entrance doorsets are intrinsic to the overall look of any building so it is important that you specify the appropriate styles and configurations. Whatever you choose, it is important that the style is in keeping with the building and also takes into consideration the performance requirements (such as thermal efficiency and weather performance characteristics).

## Security



Other materials have tried to replicate the natural good looks of timber, but only the real thing can be stained in numerous shades to show off the attractive grain.

Most modern timber windows & entrance doorsets include basic security provisions, but if an enhanced level is required, windows that have passed a BS 7950 test, and doorsets that have passed a PAS 24 test, should be selected. Usually these products will incorporate multipoint locking systems and should be supplied factory glazed, using laminated safety glass where easy access is available from outside the building.

If these tests are coupled with third party certification - such as BSI Kitemark or similar - the windows and doorsets can be used on Secured by Design (SBD) registered developments. Secured by Design is the UK Police flagship initiative, supporting the principles of 'designing out crime' by use of effective crime prevention and security standards for a range of applications. Remember, it is the product specification that meets the police standard, not an individual company.

## Low Maintenance



The best way to ensure minimal maintenance is to specify fully factory finished and factory glazed timber products:

### Full Factory Finishing

Manufacturers mechanically apply a coating system which is up to six times thicker than can be achieved by brush applying on site, because it is applied under factory controlled conditions using thicker specialist coating systems. High quality manufacturers - such as those certificated within the TWA Scheme - offer guarantees of at least 8 years on paint finishes and 5 years on stains, before re-coating is necessary. Naturally, these periods will depend on the local environmental conditions (See BWF TWAS Fact Cards 4 & 5 on Maintenance and Re-decoration).

### Factory Glazing

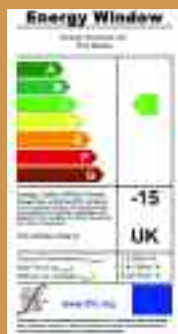
In order to comply with Building Regulations, most modern windows and glazed entrance doorsets have to be supplied with insulating glass units (usually double glazing). These can be susceptible to physical damage as water vapour can seep between the panes of a unit and cause condensation. Preventing water from being trapped between the frame and the glazing unit significantly reduces this risk. Glazing using a proven method, in factory controlled conditions and using glaziers that have been fully trained on that particular design is therefore ideal to achieve this.

If the size of the window or doorset would be too heavy to handle if glazed in the factory, the manufacturer can take responsibility for the site glazing - thereby ensuring that it is done to their specification - or may be able to offer a window or doorset that can be supplied in sections and assembled on site.

### Sills

Independent research by the Building Research Establishment on behalf of the TWA Scheme found that the shorter the projection of the sills, the longer you can expect the coating to last. Stone, brick or tile sub-sills can be used, which allow the windows to be recessed (now returned as a requirement of Approved Document L of the Building Regulations) to protect the window and also provides protection to the brickwork. The same situation can also be applied to external door sills.

## Energy Efficiency



Certification mark

The thermal efficiency of a window or doorset is affected by several factors such as frame material, glazing system, insulating glass unit design and draught sealing. Most importantly, its design is vital to reduce air leakage and to make sure it is using a thermally efficient substrate material. Also, the type of glazing unit used (including whether it is air, argon or krypton filled) can determine the amount of heat lost through the window as well as the amount of heat gained from sunlight. The heat lost from the inside of the building to the outside is indicated by a U value where a lower number indicates less lost. You should specify a value less than or equal to 2.0 W/m<sup>2</sup>K.

For domestic replacement situations, there is a new and better alternative for measuring windows' energy efficiency. BFRC Window Energy Rating (WER) is now available, which calculates a window's energy efficiency more accurately as it takes into account the U value, air leakage and particularly solar gain. The result of the calculation is then indicated by a rating between A and G on a BFRC Window Energy Label - which is similar to the rating now used for fridges, washing machines and light bulbs, and where A is the most efficient. As an alternative to U values, a rating of E or better would comply with the Building Regulations' Approved Document L and a window with a rating of C or above can qualify for the Energy Saving Recommended Scheme operated by the Energy Saving Trust (see [www.bfrc.org](http://www.bfrc.org) for more information).

## Sustainability

Timber is generally accepted to be the best environmental choice for windows & entrance doorsets (see BWF TWAS Fact Card No. 2 on Sustainability). However, the timber should be from independently certified, legal and sustainable sources. There are many organisations that certify forests to ensure that they are properly managed. The Central Point of Expertise on Timber Procurement (CPET) provides detailed information on these organisations, including specific advice on how public sector buyers and their suppliers can meet the UK Government's timber procurement policy requirements in practice. The TWA Scheme requires all its manufacturers to source their timber from independently certified, legal and sustainable sources.

## Cost

Obviously, there is a correlation between cost of a window or entrance doorset and its specification. However, the cost of ownership also includes maintenance, repairs and building energy use. The initial cost of higher quality products is likely to be offset by their longer life and the reduced need for maintenance to keep them looking good and performing well.

Contact TWA Scheme  
Manufacturers for fully  
factory finished timber  
windows

[www.bwf.org.uk](http://www.bwf.org.uk)



**British Woodworking Federation**  
55 Tufton Street, London SW1P 3QL  
Tel: 0870 458 6939 Fax: 0870 458 6949  
e-mail: [windows@bwf.org.uk](mailto:windows@bwf.org.uk) [www.bwf.org.uk](http://www.bwf.org.uk)

