

Choosing

Cost-effective, good looking and eco-friendly - timber windows are hard to beat, says **Chris Bates**

timber windows

There's no denying the inherent beauty of the combination of timber and glass. These essential building materials have been used in tandem to great effect for centuries - from the earliest historic windows to today's floor-to-ceiling arrangements - and there's no sign of the relationship fading. Modern timber-framed windows set the highest standards in terms of looks and functionality, so it's no surprise that they're top of the list for many self-builders and renovators.

Style

When it comes to refurbishments of period homes, there's little doubt that timber windows fit the bill. Their natural good looks bring a warmth and charm to traditional buildings that's difficult to replicate with synthetic materials. What's more, wooden frames enable the use of slender glazing bars, which are considered essential to the architectural character of historic buildings. They also help to ensure as much light as possible reaches the interiors by maximising the ratio of glass to frame.

Your choice of window should be informed by the age of your existing home (or the style of your new build) and the overarching character of other homes in the neighbourhood. If you're renovating a period house, repair should be your first port of call - this will give you the best chance of retaining the original character of your home and is often a more cost-effective route than replacement (see 'maintenance' section for more).

If you do require replacement units, your designer or conservation officer should be able to advise you on the best option for your circumstances. Most local authorities publish comprehensive design guides for windows, too. These indicate common styles in your area, setting out general principles such as glazing patterns for each window, typical moulding details, glazing bar widths and whether leaded lights are acceptable for side-hung casements.

Bespoke replicas made to modern standards of energy efficiency are a good choice, and may be essential if you're working on a listed building. The cost will be significant, but you'll be best placed to maintain the value of your existing home. In



1 Croxforde was commissioned to create bespoke floor-to-ceiling timber framed glazing for this stunning rear extension. The bi-fold doors and tilt-and-turn windows are all idigbo hardwood framed with a factory-sprayed finish. 2 This brick and tile-hung house has been kitted out with windows and folding sliding doors from Timber Windows. 3 From French doors to triangular gable lights, this contemporary home shows the vast array of glazing options available from bespoke specialist, Meer End

many cases, however, factory-made versions are also acceptable. Many timber window companies cater for both options.

It's not just traditional homes that benefit from timber windows. Developments in glass and wood technologies mean that stunning contemporary arrangements are also possible. Units are available either off-the-shelf in a variety of styles (designing your home to suit standardised sizes can be a good money-saver) or on a made-to-measure basis. As well as conventional side-hung casements, you can also choose top-hung, pivoting or tilt-and-turn designs. Timber rooflights are widely available, too, and make great light-grabbing features in lofts, stairwells and lean-to extensions.

Alternatively, large swathes of glazing can help to connect the house and garden by providing stunning views and letting plenty of light in. Multiple panes could sit around French doors or frame a double-height entrance, for example, while folding sliding doors provide a means of opening up the rear of your home. Some build systems allow you to make extravagant use of the

relationship between wood and glass - direct glazing can look fantastic in new oak-framed houses or extensions.

Materials

You have three main options when it comes to timber window frames:

- softwood, hardwood

and composite

Whichever you

choose, always

check whether

the wood is

certified as

responsibly

sourced (look

for the FSC or

PEFC marks)

Softwood

windows are

especially the



The Elite S2 triple-glazed unit from Otten Doors & Windows achieves U-values as low as 0.76W/m²K, making it perfect for north-facing facades or meeting high eco standards such as Passivhaus

most affordable option, though they do require more frequent maintenance. Most new units are of European Redwood, which usually needs to be treated with preservative before use. Look for models that include a high proportion of heartwood, which is more stable than sapwood and should provide a highly durable frame. Larch and Douglas fir are among the other softwoods suitable for windows and doors.

Hardwood frames are generally more durable than the softwood equivalents, but it's their aesthetic appeal that marks them out for many self-builders and renovators. Common options include oak and chestnut, though a wide range of attractive timbers can be used, offering a fantastic selection of grains and hues. Hardwood takes a long time to grow and is difficult to work, so you can expect to pay significantly more than for softwood windows. However, the high spec can make hardwood frames an automatic choice if you're looking to achieve an above-standard finish on your project.

Composite windows feature a softwood 'core', with the timber exposed on the interior face, but are finished externally with a low-maintenance cladding such as powder-coated aluminium. They're best suited to modern-style homes, though Velfac offers both contemporary and classic ranges. Composite windows tend to be at the top end in terms of price, but can be well worth the expense in exposed locations.

Performance

Modern designs meet the highest standards across the board - from energy efficiency and environmental impact to durability and security. In fact, the only domestic windows to be rated A+ in the BRE Green Guide to Specification are timber units.

Combining timber with low-E glass or argon-filled double glazing - standard choices for most self-builders - means excellent levels of energy efficiency are possible. Other options include triple, self-cleaning and solar control glazing. Both BSI (the UK's national standards body) and The British Fenestration Rating Council (BFRC) run evaluation schemes that indicate the energy efficiency of the entire unit, with A+ at the top end and G+ at the lowest. Most timber windows fit into the A-C bracket. These ratings reveal products' U-values, too - the lower the figure, the less heat will escape through its fabric.

There's more to their eco-friendliness than energy efficiency in use - windows made with responsibly-sourced timber can be carbon neutral (see page 74 for more on good sourcing practices). What's more, they're fully recyclable and biodegradable. And with an expected lifespan of 60-80 years when properly maintained, modern timber windows are more than a match for the alternatives.

CASE STUDY GEORGIAN-STYLE SELF BUILD

Jonathan Jones bought a two-storey 1860s property with the intention of knocking it down and replacing it with a period-inspired family home. The existing building was poorly-constructed and made little aesthetic contribution to the East Dorset rural conservation area it inhabited. It was sorely lacking in green credentials, too.

The new house blends with the scale and character of the surrounding village, which is replete with examples of 18th-century architecture. Modern innovations are at its

heart. The house features a rainwater harvesting system and is ready to accept an energy-saving air or ground-source heat pump in the future. And part of the remit was to use eco-friendly materials where possible.

The windows make a real contribution to the house in all aspects. "I chose bespoke designs from Mumford & Wood, which provide a high-quality natural timber solution," says Jonathan. "They offer excellent thermal and acoustic performance and exceptional style."



Today's designs also meet the highest standards in terms of security - look for features such as multiple locking point systems and key operation. Ventilators are often fitted as standard to meet Building Regs, but fully sealed units are also available to suit airtight houses where a mechanical ventilation system is in place.

Maintenance

One common gripe with timber windows is that they require more upkeep than other units. But the fact that timber windows can be re-finished and repaired is what makes them such a cost-effective choice. Damage that may require the scraping of other types can often be inexpensively remedied - many historic examples have survived for centuries, which tells its own story of the durability of high-quality versions.

Certainly timber windows both old and new need to be cared for - much like any other part of your home - but modern developments have made this a far simpler prospect. Factory finishes are typically guaranteed for seven to 10 years, while some manufacturers offer warranties on proprietary finishes of up to 30 years.

A typical maintenance cycle should involve a yearly inspection for signs of wear, such as flaking paint, sticking leaves and timber decay. Refinishing shouldn't be needed more frequently than every five to eight years. Some modern windows feature

a specialised factory-applied undercoat that allows you to simply wash down the frame and re-apply a top coat, rather than having to go through the whole process of stripping back, undercoating and re-painting.

For older windows showing severe disrepair, enlist an experienced joiner or firm specialising in conservation. Even rotten sections can be remedied by cutting out and replacing the affected member. Companies such as Ventrola offer full overhaul services, including discreet modern draughtproofing to bring the windows' performance up to modern standards. Replacing the sliding leaves of a sash window with double-glazed units, while retaining the existing box frame, is another option. ☉

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