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HOW TO CHOOSE THE RIGHT WINDOW DESIGN

BUYER'S GUIDE



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PRP is one of the world's largest multidisciplinary architectural practices specialising in the residential, specialist housing and mixed use sectors. Its clients include Berkeley Homes, Crest Nicholson and Avant Homes.



Choosing windows for a property can be one of the most challenging decisions for home owners. The issue is that windows can easily look out of place, either because they are incorrectly sized, are bulky or the style is inappropriate for the building architecture.

There are other factors to consider too. For instance, ensuring that the interior of your home has good levels of daylight or that you choose a material that is durable and sustainable. It might sound like a minefield but if you follow some basic design principles it can transform the appearance and comfort of your home.

Here are a few thoughts on issues to consider when choosing windows:

Window Design

Natural light

The level of natural light can greatly influence the perception of a space within a building. Rooms with a lot of natural light will feel uplifting and give the impression of being larger, more welcoming spaces. It can evoke the sense of space we get when we are in a large civic building such as an art gallery or a hall.

Aside from creating an uplifting experience, windows that maximise natural light in your home can provide a number of other benefits. First, they cut down on the need for artificial lighting, which helps you make savings on energy bills. Secondly, natural light, when it is trapped in a space by thermally efficient windows, generates heat. That can be extremely beneficial in winter and is especially noticeable on south-facing windows able to make the most of late autumn and early spring sunshine. Although be careful not to have too many south facing windows, as this can create over heating in the summer.

Maximising natural light in your home – be it brilliant sunlight or muted overcast winter light – can be achieved by choosing windows with slim frames. Put simply: minimum frame, maximum glass. The result is more light in the home, especially on smaller openings where frame thickness is critical and a bulky frame would block out natural light.

A high level of natural daylight has a number of health and wellbeing benefits, including increased occupant productivity and comfort. It also helps us connect more with the passing of time and seasons by making the outside more apparent within the home!

A clean, uncluttered building can also be greatly enhanced by windows with consistent format. Try to use similar format windows, either vertical or horizontally proportion. Also opening windows usually have thicker frames than fixed windows so try to think carefully about where opening windows and fixed windows are so they create a consistent, even appearance.

In summary, advances in frame and glass thermal performance means that most modern windows are now designed to maximise natural light in the home. Crucially, this means that a bulky frame is no longer the trade-off for having a more energy efficient window. It's now possible to have it all with ultra slim, consistent sight lines and energy efficiency.

Complement the architectural style of your house

It's always possible to tell when a home has been updated haphazardly. Often you see window styles, materials and colours that simply don't match. To the discerning eye this kind of approach just doesn't look right.

The rule is: do your homework! It pays to research and find out about your home's architectural style. Ask yourself questions such as, when was the house built and what windows would it originally have had?

With the right knowledge and understanding of the architectural lineage of your home, it is possible to complement rather than detract from its appearance by choosing the most appropriate window type.



Window types

The start point usually involves choosing an appropriate window type. The general rule is that vertical sliding sash windows look most appropriate on cottages and period Victorian and Georgian homes because that is what they would have been originally designed to have.

For modern, more minimalist homes with little exterior adornment (usually constructed since the 1950s), casement windows suit best because the design is simpler.

When it comes to high rise developments, where access for cleaning and maintenance needs to be taken into account, reversible and tilt and turn windows are best suited because they allow these tasks to be carried out safely from inside the property.

Frame styles

Whether you are looking for a window with exquisite detailing reminiscent of beautifully sculptured beading or something more modern, the choices you make will have a major influence on the overall look of the window.

There is a growing section of the market that is looking for something much more understated, that is reminiscent of the flush sash found on historic timber windows. The advantage of these flush sash designs is that they look good on both traditional and contemporary homes.

Scale and proportion

Here again, it is important to be consistent. Vertical proportion windows can look very elegant and are common in formal Edwardian, Georgian and Victorian properties. Square windows are less usual although modern properties can look great with vertical, square or horizontal proportion windows. However, the general rule is to stick with one or the other and avoid mixing and matching.



Frame colour

When it comes to windows, grey or coloured frames are increasingly being chosen as an alternative to white. Darker window frames will reduce the apparent size of the frame as darker materials blend with the dark appearance of the glass during the day making the frames seem less obtrusive.

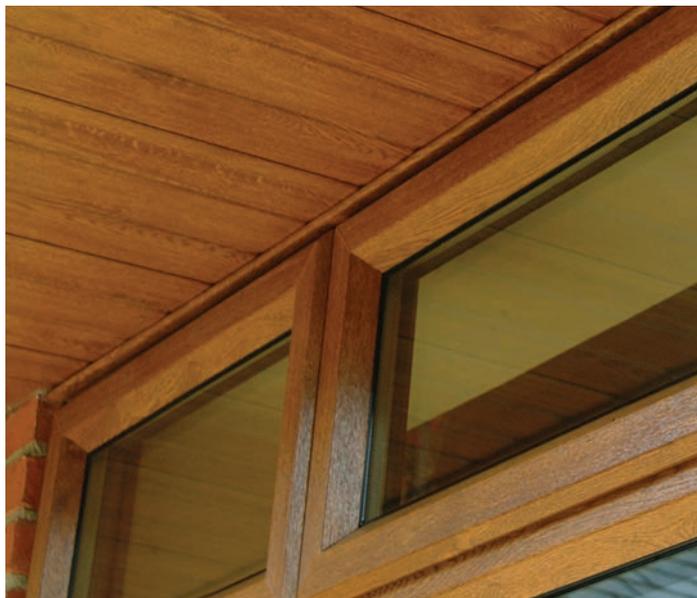
There is a common misconception that choice of window frame colour is limited, especially with PVC-U. However, that isn't the case and there is a vast range of colours now available, from wooden effects and solid greys and colours, through to metallic finishes.

Here is a general guide on what colours to choose:

- ▶ Cream or light coloured window frame finishes go well with stone and buff-coloured brickwork
- ▶ White or grey complement red brickwork
- ▶ Metallic frames such as sapphire silver, pewter and platinum look great with most brick and stone colours
- ▶ Solid colour or grey for timber weatherboarding

With such a wide choice now available, dark wood grain finishes like Mahogany and Rosewood are no longer as popular.

Following these two important rules will create a harmonious relationship between proportion of window openings and the façade.



Maximise energy efficiency performance

The general rule here is to go with the best energy rating you can afford. It's logical as it won't just make your home feel more comfortable, but will help you make savings on your energy bills.

Aside from these considerations, Building Regulations stipulate minimum thermal performance requirements for windows: you should check with the local building control to discover the current requirements. At present Building Regulations Approved Document L requires a minimum energy performance requirement for existing dwellings in England and Wales as follows:

Replacement windows

- ▶ Must meet a minimum Window Energy Rating (WER) of Band C; or
- ▶ A whole element U-Value 1.6W/m²K or better

Doors

- ▶ Must meet a minimum Whole element U-Value 1.8W/m²K or better

It is likely that Building Regulations Part L will require windows with a B-rating in the planned 2018 update. Bearing in mind that the cost difference between an A and B rating is minimal, it makes sense to choose an A rating every time, if affordable.

You may wonder whether it is worth the extra cost to have triple glazing rather than double glazing. Many companies try to sell triple glazing and it is heavily advertised on TV. However, bear in mind that it's not necessarily the optimum value option.

That's because triple glazing adds around 30% to the cost of an average window, for a 3 point improvement in U-value (1.1 to 0.8). Choosing a high specification double glazed window (1.1 U-value) at around 30% less provides better value for money for most replacement window applications.

Choice of frame material

It is now generally accepted that no material is indisputably better than another. It all comes down to personal preference and, of course, budget. 80% of windows in UK housing are PVC-U, around 10% Aluminium and 10% Timber.

Sustainability

Choosing the most energy efficient windows you can afford will reduce the amount of CO₂, helping you to do your bit for the planet as well as saving you money on your energy bills.

Responsible use of materials is important as well. If the material you choose for your windows can't be recycled, they will eventually end up in landfill. What happens to the window frame material at the end of its life therefore has a big impact on sustainability.

In recent years, attitudes towards PVC-U have changed, mainly because of advances made in recycling. When old PVC-U windows are removed from buildings they are now recycled in increasingly larger numbers, to make into new, energy efficient window products.

That covers the essential elements which make up good window design. If you take into consideration these points when choosing your next windows, not only can they look great in situ, but will offer optimum performance and value to boot.



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