

FOR OVER

**40**  
**YEARS**

THE BEST WAY  
HAS BEEN THE  
ECOSTAR WAY!

# YOUR COMPLETE GUIDE TO DOORS



Buying a new door or replacing an old one is not a straightforward task; there's so much to consider. However, with the help of Ecostar's experts, we're certain it will be a bit easier. We've been working with uPVC doors since the 1980s and have expanded our portfolio to include all modern door innovations as they became available. It's difficult to quantify how much experience we've had with them but we've attempted to put what we've learnt into this guide. We hope that it contains everything you'll need to find the perfect door for your home.

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A FAMILY RUN BUSINESS SINCE 1979, ALWAYS SMALL ENOUGH TO CARE BUT CERTAINLY LARGE ENOUGH TO COPE



# WHAT MATERIALS ARE DOORS CONSTRUCTED FROM?

Nowadays, homeowners have access to a variety of door materials. The main ones being: uPVC, aluminium, timber and composite materials. Timber has been used in the construction of doors for centuries. However, the 20th century saw usage of aluminium doors improve, particularly in the post-war period, before the dramatic rise of uPVC in the 1980s. Composite doors are the most modern addition to the door portfolio. Thanks to technological advancements, no matter the material, modern doors offer excellent levels of performance.



## uPVC

- uPVC doors offer great value and reliability. uPVC is fully weatherproof, will resist discolouring, warping, and rotting, allowing doors to last for a long period of time.
- Because uPVC is a naturally insulating material, uPVC doors can perform very well in terms of energy efficiency. uPVC framing also consists of multiple, heat-trapping chambers, so insulation levels are improved further.
- Whilst older uPVC doors posed a risk to security, improvements in technology mean the ones of today are much sturdier. They're also very low maintenance.
- Finishes for uPVC doors include white, a wide selection of colours, and textured woodgrain finishes, which are Huge variation of quality in the market, extremely difficult to find UPVC to withstand UV designed to emulate the appearance of timber.



## Aluminium

- Aluminium is a natural conductor, providing poor energy efficiency.
- As the strongest of the materials, aluminium doors are commonly used for schools and hospitals.
- Aluminium doors can be powder coated in any RAL colour, making them just as versatile as uPVC variants, however they are susceptible to corrosion and colour fade.

# WHAT MATERIALS ARE DOORS CONSTRUCTED FROM?



## Timber

- Undoubtedly, timber is a beautiful material. Its textured, woodgrain finish provides it with real depth and beauty. Some consider it the most aesthetically pleasing of all the materials.
- As a completely natural material, timber is an excellent choice for anyone who hopes to do their bit for the environment.
- Provided they've been properly cared for, timber doors are able to last long periods of time, however they require regular expensive maintenance and are susceptible to condensation.



## Composite

- A composite door is equipped with a variety of materials, in order to optimise performance levels across the board.
- Thanks to either a solid timber or foam core they can achieve energy ratings of 6 stars and above, making them the most thermally efficient.
- This core is covered with a glass reinforced plastic (GRP) skin which is low maintenance, incredibly durable and designed to emulate the appearance of timber. This means you can enjoy a timber-like aesthetic without needing to retreat the door periodically.
- Styles of composite door range from highly traditional to ultra-modern so they can easily be adapted to meet almost any visual requirements. Colour options for them are vast too.



## Steel

- Steel doors can be finished in an extensive range of powder coated finishes. They also come with a variety of handle, furniture and style options. So, you can create a variety of different looks for your home when opting for a steel door.
- The sleek and clean look of steel is can be eye-catching, ensuring a steel door will add plenty of visual appeal to any location.
- Steel is, quite simply, one of the most durable door materials in use.
- There's no need to worry about the hassle of maintaining a steel door either because they're virtually maintenance-free!

# WHICH OF THE MATERIALS IS RIGHT FOR MY HOME?

There's plenty of things to consider when trying to determine which of the materials best suits you and your home. What is for certain, however, is that if you're looking to replace an existing door, today's designs are almost certain to offer a stronger performance than your current door.



## Matching the door to the style of your home

A major consideration is whether the new door will complement your property's existing features. This is important because, if it doesn't, you might be unintentionally damaging the resale value of your home. Of course, if you like the look of a certain door, there's no reason why you can't get it fitted. It's just worth bearing this in mind.



## Finding a door to suit a period property

If you happen to live in a period property of some kind, you can't go wrong with a timber door. However, if you don't fancy treating one periodically, you might consider a uPVC or composite one instead. Both types are available with a woodgrain effect finish so can replicate the look of a timber door.



## Doors for the modernist home

For more contemporary homes, composite doors are available in a selection of excellent, modern designs to suit them. However, aluminium doors do take some beating if going for the ultra-modern look.

A final point is that modern door options are exceptionally versatile. So whilst some materials might lend themselves better to a certain aesthetic, there isn't a need to limit yourself to one specific material.



## The type of door

Your choice of material is also likely to be affected by the type of door you're after but this is covered in-depth within the next section of the guide

# WHAT TYPES OF DOOR ARE AVAILABLE?

No matter the type of door, the primary function remains the same. Any door allows you to transition from one area to the other, whether that's between the inside and outside of a property or from one interior room to another. However, their secondary functions vary wildly in accordance with the type of door so it's important to learn which best suits your needs.



## Entrance doors

You'll typically find an entrance door on the front or back of a property, where they allow the homeowners and any guests to enter and exit the home. They're typically hung from the side and open inwards.

Front doors, in particular, play an important role in determining how your property looks to any passers-by, therefore it's important to find a design that you're happy with. Ecostar install uPVC and composite entrance doors. Each option comes in a variety of styles and with customisable features, from the glass design to the hardware. Therefore, it's easy to find a design that suits your home.



## French Doors

Consisting of two doors sat side by side with no mullion between them, French doors open up to allow for completely uninhibited garden viewing whilst simultaneously flooding your home with light and air. Their continental design emerged during the 17th century and is incredibly classy. To really emphasise a traditional aesthetic, uPVC French doors are the way to go. You can also order off set French doors in uPVC from certain companies

## Patio Doors

Like French doors, patio doors are mostly made up of glass so you can significantly brighten up any areas of your home whilst enjoying panoramic views of your exterior space. When open, your home will be subjected to vast amounts of air too. However, they slide to one side to open instead of inwards or outwards. This means you don't need to worry so much about keeping their opening pathway clear so they're great for any locations where space is limited.



# WHAT TYPES OF DOOR ARE AVAILABLE?

## Bifold Doors

A modern innovation of door technology, bifold doors slide and fold in a concertina style in order to open. When the doors are open, they completely expose your home to the elements. Available with a varying number of individual door panels and opening configurations, if the right support is in place, they can even replace a whole wall.



# CHOOSING THE RIGHT STYLE OF DOOR FOR YOUR HOME



## The purpose of the new door(s)

Ultimately, the right style of door for you will depend on what you're looking to do. When replacing an existing front, back, or even a side door, an entrance door is the most suitable replacement.

If you're looking to improve levels of light and better connect your home to your garden, French, patio, and bifold doors are all up to the task. It's also worth bearing in mind that bifolds and patio doors contain slightly more glass so if light is of central importance, opt for either of these options.

If easy or wheelchair access is required through the door, be sure to consider whether or not the company offers a low threshold option too.



## Style of home

You might have decided you want to open up an area of your home to more light and space, therefore narrowing your options to either French, patio or bifold doors. But how do you decide which option is best suited to the style of your home?

Well, French doors have a classic, 17th century design so you can't go wrong with them for any period properties, especially if they're built from timber. That being said, French doors are actually pretty timeless and have featured in virtually every style of home over the years, ranging from 1960s terraced properties to more contemporary builds.

If you live in a modernist home, the sleek design and operation of bifolds is absolutely perfect for it. Although, sliding patio doors do a great job complementing any contemporary architecture too.

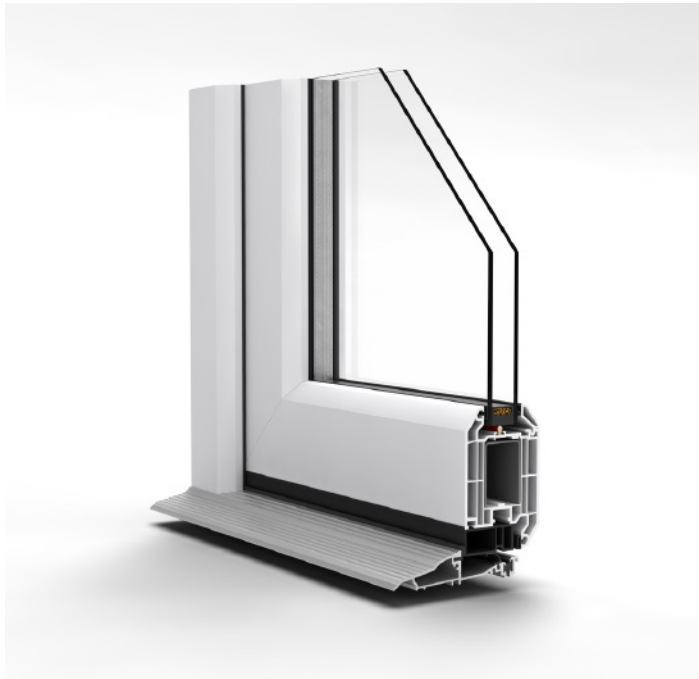
If you're unsure about whether or not your design ideas will suit your home, feel free to discuss them with a company prior to enlisting their services. Experienced companies should have worked with enough properties to know what will and won't work.





# DO DOORS COME WITH A CHOICE OF FRAMES?

Although framing is an area that many neglect when it comes to choosing a door, it will have an effect on its overall appearance. There are two main types of it to consider: Chamfered and Ovolo. However, due to the flexibility of modern materials, profiles can be adapted to suit a range of styles.

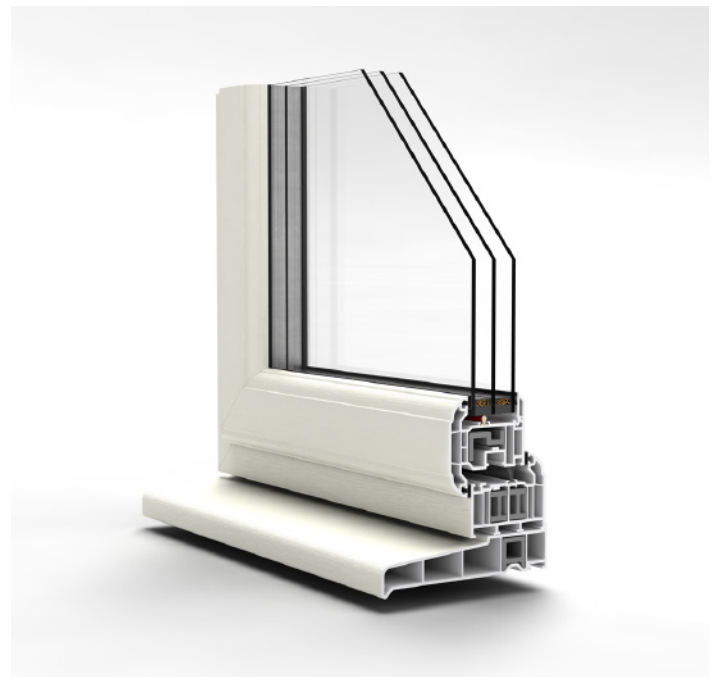


## Chamfered Framing

Chamfered frames feature a flat, streamlined appearance which many consider to be quite minimalistic. For this reason, many consider them better suited to properties that are more modern in style. That being said, the window framing that is fitted on many new builds and 1920s style properties is often chamfered. They tend to be slightly thinner than ovolo frames so if you're looking to maximise the glass area on a patio door, they are a shrewd choice. You might also see chamfered frames referred to as bevelled but they're exactly the same thing.

## Ovolo Framing

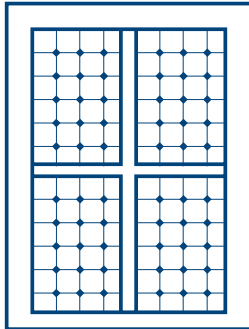
The Ovolo style of frame has a curved shape, which many consider to be more decorative than their chamfered counterparts. If you live in a weatherboard property or a period home, Ovolo frames will complement your property nicely.





# WHAT TYPES OF GLASS ARE AVAILABLE FOR DOORS?

For entrance doors, the glazing is not considered the primary component of the door, despite areas of glazing being a common feature on many entrance door designs. Patio, French and bifold doors, on the other hand, are made up primarily of glass. Therefore, knowing what glass options are available to you is very useful to know.



## Decorative Glass

Decorative glass is great for achieving a certain aesthetic and adding a stylish element to the door. Any sidelights or toplights can be fitted with it too. You can choose from both traditional and contemporary designs, various shapes, sizes and patterns.

Many decorative glass options use coloured glass, but etched designs are also available to choose from. Common examples of etched designs include the house name or number.

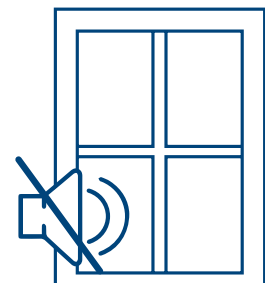
## Privacy Glass

Privacy glass is obscured, making it more difficult for onlookers to view the inside of your home. For this reason, it's commonly used on back doors and bathroom windows. However, it's also commonly used on front doors. Despite concealing the inside of your home, it has no negative impact on the amount of light that's able to get in. It's available in a range of floral, geometric and cloudy glass designs.

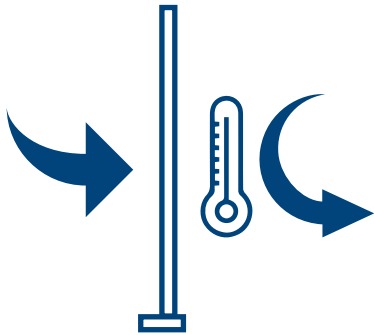


## Sound Reduction Glass

Although a standard double glazed door will keep plenty of outside noise from entering your home, you can keep more out by opting for sound reduction glass. If you live near a busy road, under a flightpath, or your neighbours are just plain noisy, having it fitted onto your new door can ensure your home environment remains a peaceful space.



# WHAT TYPES OF GLASS ARE AVAILABLE FOR DOORS?



## Low-e Glass

Utilising an invisible coating, low-e, or low emissivity, glass works by reflecting external heat away from entering your home, it also helps to reflect any energy back into the home. It also allows more solar radiation through than standard glass, leading to an increase in heat through passive solar heat gain. This ensures for a warmer home in winter and a cooler home in summer

## Toughened Glass

Toughened glass is thermally treated in order to make it up to 5 times stronger than the standard equivalent. In order to comply with building regulations, it's a requirement for strengthened glass to be used in any doors that are fully glazed. Only glazed areas that begin at least 500mm above floor height can be fitted with non-safety glass.



# WHAT DOOR FURNITURE IS AVAILABLE?

The door's furniture will have a significant impact upon its final appearance. This is especially true for entrance doors as they come with a wider selection of furniture options.



## Door Handles

Most doors will be fitted with one handle. However, patio doors that are quite sizable might have an additional door handle to make opening easier. French doors also have two handles (one for each door). The handle of any door is usually fitted with locking cylinders so you can lock and unlock it.

Different handle designs are available, as are a range of different colour finishes. Lever handles are a popular option but there's also curved, pad and several alternative handle designs to choose from.



## Door Knockers

Door knockers come in a variety of traditional designs. For this reason, they really enhance the aesthetics of traditionally styled entrance doors. Urns, lionheads and rings are some of the more popular designs that are available. They are not all the same size, however, so the way they perform is different. They also come with the option of a spyhole so you can see who is knocking on your door before answering it.



## Door Knobs

A door knob might be used for decoration or on a door that has keyless locking. Their designs can be smooth or shaped whilst they might have decorative carvings etched onto them to suit your personal preferences. They also come in various colours.

# WHAT DOOR FURNITURE IS AVAILABLE?



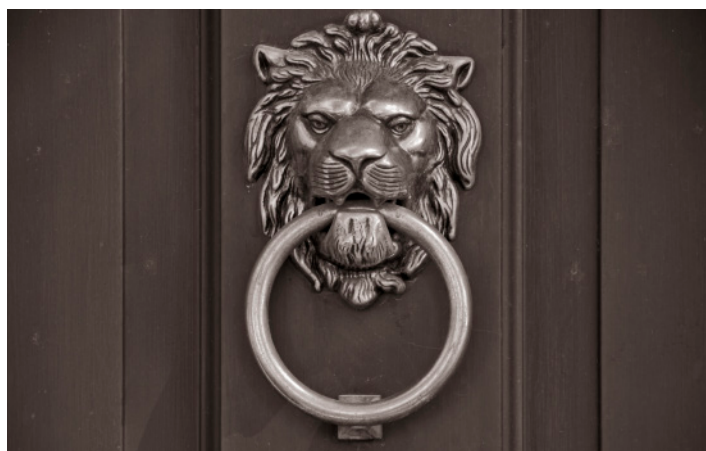
## Door Hinges

Flag hinges and butt hinges are the only two types of door hinge. Flag hinges are in the shape of flag – hence the name – and they regularly feature on uPVC doors because they make them more secure and better supported. However, butt hinges are used across the board. They only show a metal cylinder that sits on the inside of the door, near the point where the door meets the frame. This makes them very difficult to see when the door is closed.



## Numerals

Numerals can be fitted onto the exterior of a door in order to display your house number. This can be useful if it's not very obvious what number your house is. Although they serve a more practical purpose than an aesthetic one, they're available in a variety of polished finishes to match knockers and other furniture.



## Ironmongery

A renewed interest in traditional metalwork began in the 20th century, with a lot of it finding its way onto doors. Traditional ironmongery can be a great way to replicate specific period features. Ironmongery accessories you might consider includes door handles, latches and hinges but there are others available. These are usually finished in either a black cast or wrought iron colour so they look more authentic.

# HOW CAN I TELL IF A DOOR IS SECURE?

There are two main ways to determine whether or not a door is secure. The first is by checking what security hardware it's equipped with and the second is learning what accreditations the door has.

## Door Hardware



### Cylinder Locks

Cylinder locks are fitted into a door handle so they're a common feature on entrance doors but always present on French doors and others that come with a handle or two. When activated, the handle is unable to turn, thus preventing the door from opening. You want the cylinder lock to come equipped with anti-snap technology. This is because inadequate cylinder locks are prone to being forced open by intruders.



### Night Latch

This type of lock is fitted onto the internal side of the door. They are opened from the inside using a lever or from the outside using a key. However, key operation can be prevented by using a small button to lock the latch into position. If you've ever left your front door on the latch, this is the piece of security hardware that enables you to do so. A common feature on entrance doors, they're usually used in conjunction with a mortice deadlock.



### Mortice Deadlock

Mortice deadlocks are fitted inside the door and operated by a key. As the key is turned, a bolt is inserted into the door frame, thus securing the door. They can be used on a number of entrance doors, although, they're most commonly found on timber variants. Many insurance companies will also require an entrance door to be fitted with one, in order to comply with their requirements.



### Door Chain

A door chain is an additional but very useful security feature. They allow you to partially open your door so you can speak to any visitors without leaving your home totally exposed.



## Accreditations that demonstrate security

At a minimum, any door you purchase should have PAS 24 accreditation. PAS 24 is a test standard that is used to assess the security performance of windows and doors. Doors that are tested to this standard undergo a series of tests that simulate common burglary scenarios. Any doors that receive PAS 24 accreditation must meet a minimum standard of performance in these tests.

However, if you're particularly security conscious, you might want to look out for Secured by Design accreditation. This is a UK Police operated scheme that recognises high levels of security on doors, windows, and other home products. Ecostars door range is Secured by Design accredited.



# HOW CAN I TELL IF A DOOR IS SECURE?



## Multi-Point Locking Systems

Some of the doors built today come fitted with multi-point locks. They work by securing the door at multiple locations in the framework, leaving fewer weak spots for potential intruders to exploit. They are engaged when the door handle is lifted upwards.



## Anti-Lift Technology

A security measure that is specifically used on bifold and patio doors, anti-lift technology uses security strips to prevent these types of doors from being lifted out of their tracks by intruders so they can gain entry to your home. It can also be referred to as anti-jacking technology.



## Kubu Equipped Door Lock

This revolutionary door lock utilises smart technology, allowing you to monitor the status of your door in real time. A module is placed within the door frame and synced with a smartphone application via the use of a smart hub. This allows you to check if your door is locked, receive notifications whenever someone uses your door and check your door history. If you're someone who often worries about leaving your doors unlocked, you can set the app to notify you of its status as soon as you leave the home, so you never have to worry if you've locked it again. Ecostar have exclusivity in supplying and installing the kubu door lock in Victoria, Australia.



# HOW IS THE THERMAL PERFORMANCE OF A DOOR MEASURED?

Thermal performance is an important consideration when buying a new door. The better it is, the more opportunity you'll have to save on energy costs. This makes your home more energy efficient so you can reduce your carbon footprint too.

There are multiple factors that affect performance. This includes the overall design, the materials in use and the quality of the glazing. Specific hardware also serves to improve a door's insulation qualities. This can include everything from low-emissivity glass to the weather seals, to the threshold.

There are two main methods used to calculate their overall thermal performance: Door Energy R-values and U-values.



## U Values

Another method for measuring the thermal performance of a door is to look at its U-value. They are calculated by the equation  $W/m^2k$ , which measures heat loss in watts (W) per square metre of material, when the temperature (k) outside is at least one degree lower. The lower the U value, the better the insulation the material provides. For materials with a U value of 0, no heat is able to escape.



## R-Values

R-values measure a material's resistance to conductive heat flow. The higher the R-value, the greater the resistance, and so the better the material's thermal insulating properties. R-values are measured in metres squared Kelvin per Watt ( $m^2k/W$ ). To calculate the R-value, the thickness of the material in metres is divided by the thermal conductivity ( $W/mK$ ).

# FINDING THE RIGHT DOOR COMPANY IN YOUR AREA

Deciding on the right door for your home is only the first step; the second one is ensuring you enlist the services of the right company. Of course, without knowing how to discern between a good and bad company, this is very difficult. So here are the things you should be looking out for.



## Product and Installation Guarantees

When buying new door, it's important to look at whether or not the company offers a guarantee on all the door components and the installation. If they're not prepared to offer one that covers both aspects for 10 years, it pays to steer clear of them. If a company can't even guarantee them for 10 years, what is the likelihood of them lasting for 5?

## Accreditations

Who the company is accredited by gives a good indication of the quality of the business. For instance, having accreditation's such as Secure by Design, BSDI, AGWA, WERS, HIS & HCP, means that the company and its products have been independently audited. After all, any company can claim anything, but if such claims are not backed up by independent auditing companies it's just talk... and talk is cheap. What cannot speak cannot lie



## Price

You might find yourself drawn to a company who is offering to do the same job for a considerably lower price than the other companies. However, if it sounds too good to be true, then it probably is. When it comes to home improvements, you tend to get what you pay for. So unless the reason for the price reduction is the result of a clearly outlined promotion, the reason it's so cheap is likely because the job will fall short in a number of key areas.

## Is the Company a Registered Building Practitioner?

By law **only** Registered Building Practitioners can carry out home renovation contracts that exceed \$5000. This gives you the peace of mind that you are dealing with an audited, qualified, professional company who has in depth knowledge of the National Construction Code (NCC). Furthermore this allows the company to provide their clients with official insurance indemnity, if for whatever reason something goes wrong with the installation or the company itself, your investment is covered.



**REGISTERED**  
Building Practitioner



# PAYING FOR NEW DOORS

**Even if you're not considering finance, it pays to deal with a company who can offer it!**

Although many consumers are reticent to use finance to fund their purchases, if a company can provide it, they can only be eligible by providing the lending institution with the following information:

5 years of Audited, Profitable Accounts

A Strong Balance Sheet

A Profit and Loss Statement proving they are an established business and not a 'going concern'

No History of Liquidation or Bad Debts.

Certified Insurance Cover for the work they carry out

**Common examples of these include:**



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## FINAL CONSIDERATIONS

Whatever you find your perfect door to be, modern technology ensures that the value of your home is bound to rise. But, if you find yourself unsure about the right option for you or you'd like to discuss anything in this guide with a well-informed, friendly member of our team, please don't hesitate to get in contact with us.

We hope this guide has provided you with all the information needed to choose the right door for your home.

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