



ThermAdor Residential

and ThermAdor Residential with Kingspan ThermalSafe

Insulated Sectional Garage Doors





Kingspan Door Components

Kingspan Door Components offer a high quality, comprehensive range of insulated panels and hardware for sectional doors, and we are focused on providing innovative product solutions with value added benefit for all our customers.

Whilst being a market leader, we benefit from the resource support provided by a powerful group within the industry. The Kingspan brand in Ireland is synonymous with quality and we are proud of our reputation for innovative design, exceptional quality and technical expertise.

Kingspan Door Components has its factory base at Leuze-en-Hainaut in Belgium. From here we operate an advanced production complex servicing all European and worldwide export markets. The Kingspan Door Components full range of products, for use in industrial and residential applications, is manufactured exclusively in Ireland by our partner TiltAdor Ltd.

Kingspan's insulated panels are the most thermally efficient and technically advanced available in the market today. ThermAdor garage doors, manufactured by TiltAdor, use only high performance panels and premium quality door components by Kingspan.

We hope you will choose ThermAdor for your new garage door.

In partnership

(All)





TiltAdor Garage and Industrial Door Manufacturer

Established in 1983, TiltAdor is a leading manufacturer of a range of doors for the residential and industrial market and Ireland's original garage door manufacturer.

To meet the increasing demand for energy efficiency, in 2007 we teamed up with Kingspan, widely regarded as a leading edge provider of insulation and building materials for the construction industry. Together we are delighted to offer the ThermAdor range of insulated sectional doors which are available through our national network of authorised distributors.

Doors are our business and both quality and safety are at the forefront of everything we do. Our strategic partnership with Kingspan means that, when you choose one of our doors, you are selecting the best in quality, design, features, safety and service.

A garage door is an integral part of the design, architecture and security of your home and choosing a new garage door is an important decision. For inspiration, check out our web site at www.tilt-a-dor.co.uk, visit us at our factory showroom in Newtownards, Co Down or have a chat with one of our team who will be pleased to help you find the right door for you.

We look forward to doing business with you in the future. In partnership

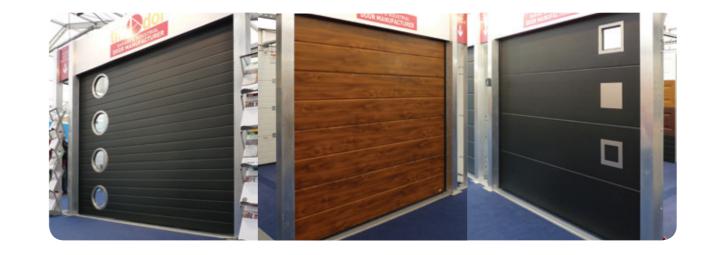
South My

Emmet McGrogan, Managing Director



Emmet McGrogan, TiltAdor with Jean-François Nieuwland, Kingspan Door Components

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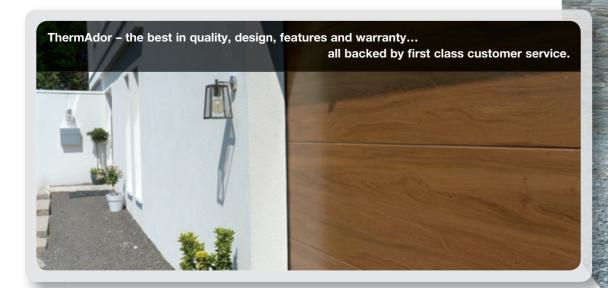


ThermAdor Residential





When you're looking for excellent thermal efficiency, superior quality, maximum security, long-term durability and low maintenance, look no further than the ThermAdor range of insulated sectional garage doors.



Our **ECO**safe and **FIRE**safe insulated door panels are filled with polyisocyanurate (PIR) insulation which is of higher specification than standard polyurethane insulation. Kingspan's PIR panels are only available in Ireland from TiltAdor.

Georgian Profile







The thermally efficient, ThermAdor Residential

ThermAdor garage doors not only look good, they provide outstanding performance in all weather conditions. The doors consist of 40mm thick interlocking panels, made of premium quality galvanised steel, filled with

polyisocyanurate (PIR) insulation.

ThermAdor uses the latest technological advancements to minimise heat loss

through your garage door. The strength of the panel, along with full perimeter and joint seals, gives exceptional protection against wind and rain ingress and provides excellent levels of thermal efficiency.

Every door is made-to-measure and, with a choice of panel designs and an extensive range of colours, ThermAdor is certain to enhance the appearance of your home. If quality, style and energy efficiency are important to you, then make ThermAdor

Our standard ThermAdor Residential achieves an installed / complete door U-value of an impressive 1.2 W/m²K, Air Permeability Class 2 and Wind Resistance Class 5.

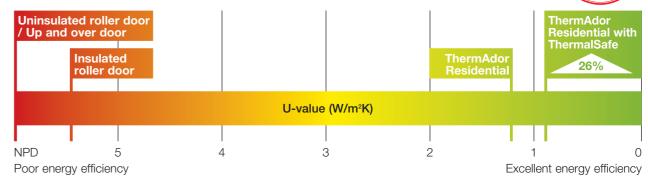
For the Ultimate Thermal Performance, Kingspan **THERMAL**Sate

We take thermal performance seriously. All ThermAdor Residential doors are manufactured to the highest quality standards using only insulated panels AND hardware by Kingspan. If you wish to increase thermal performance even further, you may upgrade the hardware on the door with additional Kingspan THERMALSage components (see page 12-15 for full details). Exclusive to TiltAdor, ThermAdor Residential with **THERMAL** is Europe's leading insulated sectional door offering unparalleled energy efficiency with a significantly lower U-value and air leakage reduction.

hermAdor

Up to 26% better thermal performance than any other sectional door in the market – installed door U-value of 0.84-0.99 W/m²K

- ▼ The first and only garage door in the market to achieve Class 4 Air Permeability EN 12426
- Maximum achievable Wind Resistance rating of Class 5 EN 12424



NPD = no performance determined. U-value = thermal transmittance.

ThermAdor Residential





Superior Weatherproofing

To enhance its thermal performance, all ThermAdor doors are fitted with:

- Integral top and side weatherseals to minimise draught.
- ✓ A substantial 30mm bottom seal to protect against wind and rain infiltration.
- ✓ Seals between the panel sections across the entire width of the door to stop rain seeping through the door.

ThermAdor Residential with **THERMAL** safe* is fitted with an additional compression seal at both sides and at the top of the door - see page 12-15 for full details on the **THERMAL***safe** upgrade option.



Highest Security - the Intelligent Choice

ThermAdor is the most robust and secure garage door that money can buy. Reassuring design features to provide protection against break-in include:

- √ 40mm panel thickness for maximum strength, rigidity and security.
- Tightly interlocking tongue and groove panels and all round weatherseals mean there are no inviting gaps... it is virtually impossible to prise the door open.
- Our insulated panels are manufactured to overlap your garage opening. This ensures the panels are held securely within the track system and also reduces the possibility of the door being forced open at the sides.
- Optional SKG security upgrade to hardware kit. See page 17 for details.
- All ThermAdor garage doors are suitable for remote control automation. Automatic doors incorporate a unique, patented security system offering ultimate protection against break-in. Our German-made automatic opener meets the European SKG 2 certification standards for burglar resistance. See page 18-19 for details.

Manual Operation

The majority of homeowners choose to automate their ThermAdor as this provides additional security and convenience. If you prefer to operate your door manually*, a black handle with a Euro cylinder lock and dual action locking bars are available as an optional extra. The double bar locking action provides robust, reliable, long-term performance unlike cable locking devices which can stretch or snap over time.





*ThermAdor sectional doors are supplied as standard without a handle and lock. Manual operation must be specified at time of ordering.

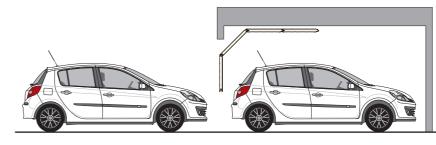
How much would you lose if a thief was to break into

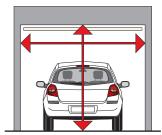
your garage?

Ideal for all Garages

ThermAdor garage doors are installed behind the opening, maximising the drive-through width and height of your garage. This gives you more clearance at each side as you drive in and out of the garage and is particularly beneficial for larger cars, 4x4s, vans, caravans and off-road vehicles.

ThermAdor opens vertically upwards and each section of the door slides back along the track system into the garage. There is no out-swing so you can park your car right up to the door.





ThermAdor garage doors require very little headroom and sideroom. Their strength, stability and design make them ideal for all sizes and shapes of garage openings, including archways.

A ThermAdor insulated sectional door is ideal if:

- ✓ you have an attached / integral garage;
- ✓ you have a large garage opening;
- you use your garage as a workshop, office, playroom, gym or utility room;
- ✓ your home is in an exposed or coastal location;
- you require a door that is extremely secure; or
- you simply want the best quality garage door available.



Colour Range



Our residential door panel range is available in a choice of popular colours and designs. The hard-wearing surfaces, which are easy to clean, provide enhanced UV protection, colour fastness and superior abrasion resistance.

Made-to-Measure Sizes

With the ThermAdor range, there's no such thing as a standard size!

Our doors are individually made-to-measure to fit your garage exactly... and at no extra cost to you! Georgian † designs are available up to 4420mm wide x 3000mm high †† .

All other panel designs are available up to 5500mm wide x 3000mm high!1

†Please note that, due to panel configuration, Georgian panelled doors may not be suitable for all size ranges.



For more photos and a little bit of inspiration, check out our complete range of doors on our web site at **www.tilt-a-dor.co.uk**



If you require a custom colour, our painter will prepare and spray paint your panels with your chosen RAL colour for a professional, long-lasting finish.

Durable Polyester Colour Coated or Polyurethane Based Coating

The Kingspan pre-painted 25 micron thermosetting polyester paint finish used on ThermAdor's white, black and anthracite panels offers excellent resistance to corrosion. Polygrain Smooth is a smooth-finished flat panel with a white polyurethane based coating.





Premium Quality Laminate Woodgrain

Our woodgrain designs perfectly complement uPVC windows. The 140 micron semi-rigid polyvinylchloride (PVC) / polyolefin film is durable, attractive, maintenance-free and provides superior resistance to UV. Horizontal ribbed panels have a smooth surface. Georgian panelled designs have an embossed textured finish.



Glazing Solutions... ask us for our latest window options.



The inside finish of all doors is White RAL 9010, 25 micron, stucco embossed, polyester coated, 100mm Linear Rib design. ††For larger sizes please refer to our ThermAdor Industrial door brochure.

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PIR Insulation



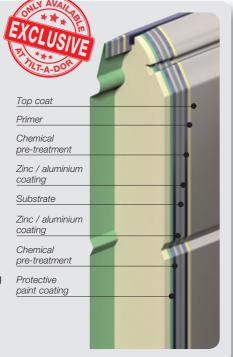


PIR foam technology by Kingspan ensures the lowest thermal conductivity of any other sectional door panel currently available on the market and provides the best performance in terms of thermal insulation.

Kingspan PIR Insulated Panel

- Kingspan **ECO**safe insulated panels use an environmentally sustainable FIRE sate polyisocyanurate PIR insulation core.
- Kingspan **ECO**safe insulated panels are the result of extensive research and development work to provide an optimised and sustainable solution for our customers.
- Kingspan **ECO**safe insulated panels have a low GWP (Global Warming Potential <5).

The Kingspan panel consists of 40mm thick HFC, CFC and HCFC free polyisocyanurate (PIR) expanded foam insulation, sandwiched between two sheets of high strength galvanised steel. The closed cell PIR foam matrix auto-adhesively bonds to the impermeable outer skins, preventing water absorption and providing long term thermal performance and reliability. The panel outer skin consists of 0.45mm continuous hot dip, zinccoated structural steel (95% zinc, 5% aluminium).



Polyisocyanurate (PIR) foam is an expanding liquid insulation of higher specification

types. From concept and design to manufacture, Kingspan Door Components are

than standard polyurethane or polystyrene commonly used in other door panel

ThermAdor's FIRESafe PIR foam core, which is unique to Kingspan, is self-

The PIR chemical formulation is the same as Kingspan's Roof and Wall panel which

extinguishing and more difficult to ignite than other types of insulated panel.





Why choose Polyisocyanurate (PIR) Insulation?









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committed to advancing technology.



Designed with Safety in Mind

The garage door is the largest moving item in your home and door failure can cause serious injury. Safety should be a key consideration when selecting your door. ThermAdor has been tested to the highest safety standards and incorporates the most advanced safety features available.

- ✓ Fully Compliant with Standards ThermAdor is (€ CE marked and compliant with the European Safety Standard EN 13241-1.
- ✓ Spring Break Devices by Kingspan the springs used have been designed and tested to exceed 20,000 spring lifecycle. However, in the unlikely event of a spring breaking, the Spring Break Safety Device will activate and lock the door in position and prevent it from falling.
- ✓ Multiple Torsion or Extension Spring System heavy duty dual torsion or extension springs ensure that the door is perfectly balanced at all points throughout the door cycle.
- ✓ Premium Quality Door Components by Kingspan only the best quality door components by Kingspan are used to ensure ThermAdor is supported on the strongest foundation.

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Upgrade to Kingspan THERMALsate®

Kingspan has designed a package of components for a truly ThermalSafe door. With Kingspan **THERMAL**Safe* you achieve a sectional door with the best thermal performance U-value, the best air permeability and the best wind resistance class.

European Regulations on energy performance of buildings identify 2 key areas to be addressed in the design of a garage door:

- Thermal conductivity the performance of the insulated panel (U value)
- ✓ Air permeability the loss of heated / cooled air from inside the building through gaps, holes etc.

Thermal Conductivity

The U-value of a material is a measure of the amount of heat that passes through a surface area of 1m² for each degree of temperature difference. Therefore, the lower the U-value, the more energy-efficient the material is. The U-value is a function of the thickness of the material and its thermal conductivity. To properly calculate the U-value of a garage door, one needs to take into account not only the door panel BUT ALSO panel joints, side seals and other places that the heat can be conducted.

Air Permeability

The air permeability is the amount of airflow that passes through the assembled door. It can pass through:

 \checkmark the door leaf \checkmark the panel joints \checkmark the sides \checkmark the top and the bottom of a door

Designing a sectional door that combats these issues is a challenge. Kingspan has surpassed this challenge with...

THERMALSate*

Superior Insulation performance GUARANTEED

Highly conductive materials such as steel and aluminium are replaced by high-quality polythermalyne profiles and endcaps which substantially reduce thermal bridging (cold / heat transfer).

The **THERMAL** weatherseal has been designed to wrap around the steel tracks and also includes a compression seal to minimise the air leakage and cold bridging through the door frame.

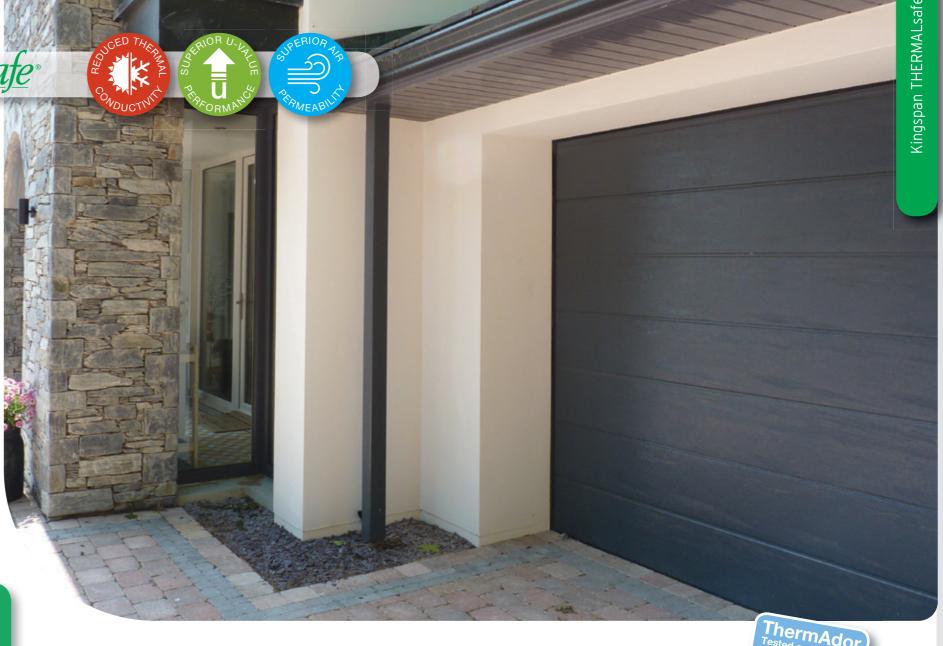
Europe's leading insulated sectional door... Kingspan THERMALSate*

ThermAdor Residential with **THERMAL** safe* offers even greater thermal performance and air leakage reduction making it:

- ✓ Up to 26% better thermal performance than any other sectional door installed door U-value of 0.84-0.99 W/m²K
- ✓ The only garage door to achieve Class 4 Air Permeability (i.e. a high level of air tightness)
- Maximum achievable Wind Resistance rating of Class 5 equivalent to 166 km/hr i.e. hurricane force winds.

Check out www.tilt-a-dor.co.uk for Kingspan's video on THERMALSafe*.





Performance Comparison

Door opening mm (WxH)	2500 x 2000	3000 x 2125	4500 x 3000
	U-value (W/m²K) for an installed door		
ThermAdor with Kingspan components	1.33	1.25	1.06
With Kingspan THERMAL safe* components	0.99	0.94	0.84
Improvement	26%	25%	21%
	Air Permeability EN 12426		
ThermAdor with Kingspan components	Class 2	Class 2	Class 2
With Kingspan THERMAL safe components	Class 4	Class 4	Class 4
Improvement	300%	300%	300%
	Wind Resistance EN 12424		
ThermAdor with Kingspan components	Class 5	Class 5	Class 5
With Kingspan THERMAL <i>safe</i> components	Class 5	Class 5	Class 5

Air-permeability Δp at a pressure of 50 Pa [m⁹/m²h] - class 2 \leq 12 m⁹/m²h - class 4 \leq 3 m⁹/m²h loss of air through the door. Wind resistance class 5 >1000Pa (maximum rating achievable).

The ThermAdor range has undergone rigorous independent testing by SP Technical Research Institute of Sweden so you can be confident that it fully complies with current legislation. It's our commitment to high quality that makes us first choice with architects, contractors, developers and homeowners.



THERMAL safe Components

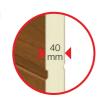
Kingspan has designed a package of components to make your ThermAdor – a **THERMAL**safe[®] door.

THERMALsafe[®] foam technology by Kingspan ensures the lowest thermal conductivity of any other sectional door panel currently available on the market and provides the best performance in terms of thermal insulation.

Thermal conductivity through the panel joint is reduced due to a duo-shell panel concept: the panel joints have been designed to ensure a thermal break between the internal and external sheets of the panel. This duo-shell panel design together with the high-performing PIR insulation core gives an outstanding thermal performance.

In addition, the **THERMAL** of couble seal system provides a further thermal break to eliminate cold bridges where the panels join therefore improving air-tightness.

All of this is achieved based on a standard 40mm panel.



1 THERMAL safe* panel - joint details



Both ThermAdor Residential and ThermAdor Residential with **THERMAL**Sate* are manufactured using Kingspan's PIR insulated panels. The double seal system is only provided with the Thermalsafe upgrade.





2 THERMALsafe* double weatherseal





THERMAL *safe* side weatherseal is inserted between the door's steel tracks and the wall to eliminate the thermal bridging created by the contact with the building's cold surfaces (wall, concrete, steel etc).

An additional **THERMAL**Safe* compression seal, inserted into the weatherseal, improves air-tightness.



3 THERMALSafe* endcaps



Steel end caps are replaced with **THERMAL**safe^{*} polythermalyne endcaps which cover the left and right of each panel of the door. These eliminate cold bridging between the internal and external side of the panel.

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4 THERMALSafe* bottom profile and seal



bottom profile made from polythermalyne, eliminates cold bridging between the interior and exterior of the door.

The **THERMAL**sate* bottom seal slides into the bottom profile to greatly reduce air permeability beneath the door.







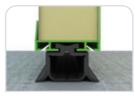




Your ThermAdor is made-tomeasure and the top and / or bottom panel may be cut to suit the size of your garage opening.



top and / or bottom profile will then be placed along the bottom or the top panel of the door to eliminate cold bridging.









Kingspan Track System



The ThermAdor range is supplied with a choice of Kingspan residential track systems making it ideal for most garages. For maximum flexibility, our extensive hardware range covers all sizes of openings up to 5500mm wide x 3000mm high. All our track systems are fully CE marked.

ThermAdor is supplied with Kingspan's patented pre-assembled track and spring installation system as standard. For quality assurance and to ensure maximum performance, only the highest quality Kingspan door components are used in the ThermAdor sectional door range. ThermAdor is built to last!

We only use Kingspan hardware.



Kingspan offer different track systems for ThermAdor so that the door may be installed in all types of garage.

Kingspan's standard headroom track system requires 200mm headroom clearance for both a manually operated and an automatic door. Sideroom clearance required is only 75mm. The springs are installed above the door opening.



ThermAdor 70

Kingspan's low headroom track system requires only 70mm headroom clearance for a manually operated door and 100mm headroom clearance for an automatic door. Sideroom clearance required is only 75mm. The springs are installed on the back brace at the rear of opening.

Kingspan's EasyPass Door, allows safe and secure access without having to open the whole garage door. Built into your garage door, an EasyPass door offers a convenient way of entering the garage without the need to open the whole garage door.

ThermAdor T100

Ideal for small doors or for garages with very little headroom or sideroom, Kingspan's extension spring system operates with only 40mm headroom clearance for a manually operated door and 70mm headroom clearance for an automatic door. Sideroom clearance required is only 50mm. The springs are installed at the side of the opening.

Industrial Tracks

ThermAdor Residential may also be supplied with High Lift, Vertical Lift and Follow-the-Roof industrial hardware on special request. For larger sizes please refer to our ThermAdor Industrial door brochure.



Easy*Pass*

For the security conscious homeowner

ThermAdor 200

standard track

The SKG security upgrade is a unique hardware modification to our ThermAdor 200 track system. In addition to the standard security features of the ThermAdor range, the SKG security upgrade lends even greater protection to prevent forced entry and meets the European SKG 2 certification standards for burglar resistance.

How it works...

- being levered up and around the track.
- ✓ Intermediate track plates to prevent your door being prised in at the midpoint section.

Technical Service and Warranty

Galvanised hinges

connect the door

panels securely

Door is held secure

at 10 individual





springs for perfect

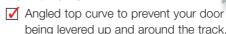
are pleased to answer technical queries regarding the use of our products from the specification stage right through to

installation. We can even liaise directly with your architect. Our customer services department provides a professional, friendly and efficient service. We're always happy to help.

rollers for smooth,

It's important to have peace of mind when you invest in a new garage door and that's why the ThermAdor range comes with a limited 10 year warranty. Full warranty conditions may be found on www.tilt-a-dor.co.uk.





- ✓ Base track anchors lock the bottom wheels in position to prevent them being forced out of the tracks.



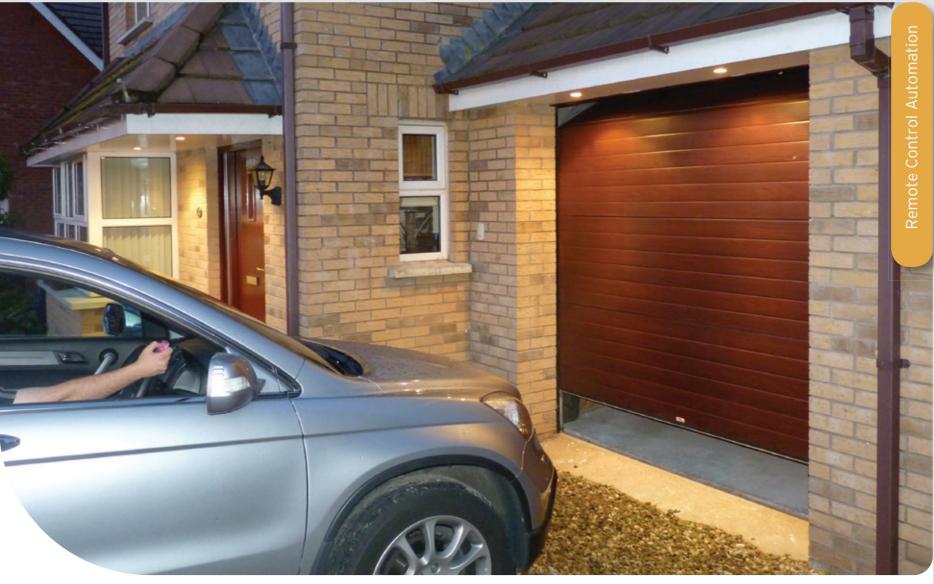
steel tracking

Remote Control Automation

You'll really appreciate an automatic garage door opener on those cold, dark or rainy days. No more getting in and out of your car to open or close your garage door!

Our automatic openers provide quiet, convenient, reliable operation as well as increased security and are suitable for all ThermAdor sectional doors up to 15m².





Quality, Convenience and Reliable Performance

Simply press the button as you enter your driveway, the door opens, a courtesy light comes on and you drive in. Press the button again and the door closes behind you and the light turns off automatically.

- ✓ Two keyring handsets are supplied as standard.
- ✓ Unique fast-speed opening will open your door at a speed of up to 22cm / second.
- In the event of a power cut, a simple pull of the disengage cord will release the door and allow you to operate it manually.
- Soft start, soft stop function slows down the door before the end of the cycle. At the start of the cycle, it will accelerate smoothly to normal speed. This reduces wear and tear on the motor and door.
- The optional Berner Secure Mobile App allows you to control your garage door from anywhere. So, if you are expecting a delivery, you don't have to wait about... you can open the door using your phone and close it securely afterwards.



Safe Opening and Closing of your Garage Door

- ✓ CE compliant, meets European Safety Standard EN 13241-1.
- Automatic reverse function if the door comes into contact with an obstruction it will either stop or go back up automatically.
- either stop or go back up automatically.

 Intelligent sensitivity' checks and adjusts the force required to ensure the door is safe. If the door weight should change, for example, due to moisture in winter, the opener re-adjusts automatically to ensure optimum performance.
- ✓ Industry leading 5 year limited warranty for peace of mind. Full conditions may be found on www.tilt-a-dor.co.uk

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High Security Automatic Locking

- A mechanical motor blocking device automatically locks the door when it closes to protect against forced entry. The door cannot be opened until it receives a coded signal from your handset.
- ✓ The high security transmitters use an advanced hopping code system which means that every time you open or close your door a new security code is automatically generated. This prevents thieves copying codes to gain access to your garage.
- ✓ A unique, patented levering-protection system offers even higher levels of security. When the door closes a steel hook automatically locks into the boom stop and makes it virtually impossible to lever the garage door from outside. This system is the most effective protection against a break-in and it always works even if there is no electricity or if your door is disengaged. Thieves have no chance!



Optional Accessories



A digital keypad allows entry via a 4-digit security PIN



measure

Infra-red beam An sensors are rel available as an ac additional safety ou



An external key release allows access from outside in the event

of a power failure



Wireless transmitter for car cigarette lighter



Internal wireless wall button for use inside the garage



fingerprints

Finger scanner entry system can store up to 12



With the Berner Secure Mobile App you can control your garage door remotely by Smartphone, Tablet or PC





Supplied by:



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www.tilt-a-dor.co.uk

















Due to our continuing policy of development and improvement, we reserve the right to alter and amend the specifications shown in this literature. All dimensions are nominal. We make every effort to ensure perfect colour reproduction, but owing to printing limitations, the colours shown may not match exactly. Actual product samples should be obtained from your door supplier.