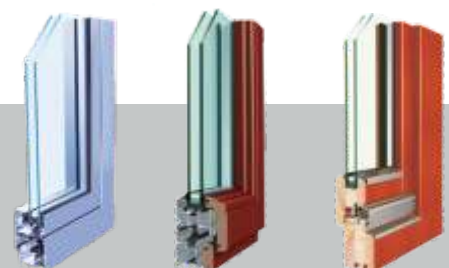




Setting new standards

Project Windows 2013/ 2014





The Q-Windows advantage

- ✓ **Style** modern design and superior functionality
- ✓ **Security** unmatched locking system with German hardware
- ✓ **Comfort** low maintenance and unmatched product lifetime
- ✓ **Convenience** 100% watertight. 70% better noise insulation. 80% better heat insulation
- ✓ **Economy** save up to 70% on your electricity bills
- ✓ **Quality** European profiles & hardware

Content

Windows and Doors form an essential part of your home's unique identity.

At Q-Windows we manufacture, design and install high quality windows & doors. Our professional service, and outstanding products add prestige and exceptional value to your property.

Our unique solutions are stylish, modern and suitable for projects of any size and budget from private homes to condominium developments to office buildings. We incorporate the latest innovative German technology and use the highest quality materials. Our products are virtually maintenance free, highly durable and provide unmatched sound and heat insulation.

Our extended warranty gives you peace of mind.



Aluminum
Aluminum Profile with Thermal break

5



Aluminum Wood
Aluminum Profile with wooden cladding

7



Timber / Wood
Pure wooden profile

9



Systems
Endless Possibilities

10



Technical Details

24



Aluminum



Aluminum

A solid, durable, modern System

Our European profiles with thermal break, German standard hardware and double glazing combine a modern look with unmatched functionality and are available in various colours.

Blending high grade European hardware and technology with the latest developments in hollow heat-isolation glass, Q-Windows Aluminum Windows and Doors are made to the highest standards available today. This profile represents the next generation of functional and aesthetically pleasing window and door frames.

- 20.000 cycles without damages
- Expanded gasket zone: very good noise insulation
- Minimum visible profile widths of 51 mm
- Maximum light
- All possible opening type
- 6063-T5 high grade aluminum, thickness of up to 2.0 mm
- Thermal break
- High grade German hardware
- 5+12A+5 mm double glazing
- 10 years operational warranty



Security

Noise-Isolation

Air con-Reduction

	Class	Value	Test Method
Sound Insulation performance (dB)	2	32	DIN EN 20140
Rain impact resistance (Pa)	C8	433	DIN EN 12208
Air permeability (m³/h m)	4	0,3	DIN EN 12207
Security Class	Standard	-	DIN EN 1627
Thermal protection (W / m²K)	-	2,2	DIN EN 10077



Aluminum-Wood

Aluminum-Wood

Wooden-look, Aluminum-Strength

This innovative new profile system combines all advantages of Aluminum windows with the timeless look of natural wood. The heart of this system is our Q-Windows Aluminum Profile which is covered on the inside by wooden cladding to give an exclusive look and warm feeling to living and office spaces. Aluminum as well as wood colours can be matched to the customer's specifications.

Built with a combination of aluminum and wood, the Q-Windows Aluminum Wood profile also features the enhanced security of concealed multipoint locks for your peace of mind.

Hand polished surface

Water proof, permeable, anti-uv, anti-mold

Strong Aluminum structure

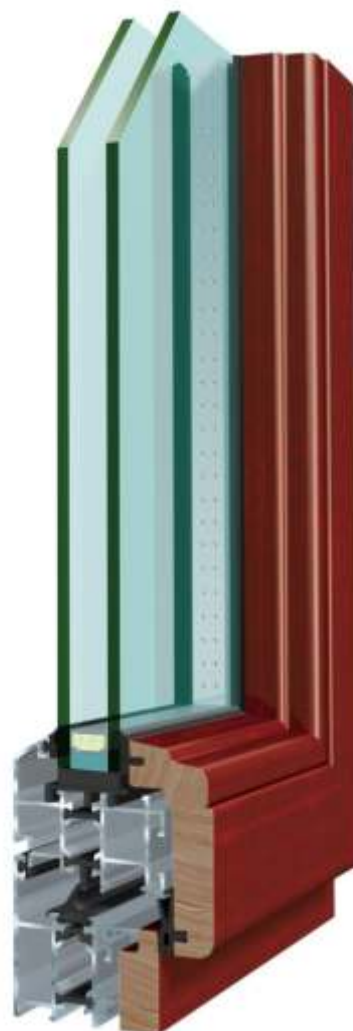
Thermal Break

Hollow Glass for heat insulation and noise reduction

German Hardware (ROTO)

German Paint (Remmers)

10 Years Operational Warranty



Security



Noise-Isolation



Air con-Reduction

	Class	Value	Test Method
Sound Insulation performance (dB)	2	32	DIN EN 20140
Rain impact resistance (Pa)	C7	350	DIN EN 12208
Air permeability (m³/h m)	4	0,3	DIN EN 12207
Security Class	Standard	-	DIN EN 1627
Thermal protection (W / m²K)	-	2,7	DIN EN 10077



Timber (Wood)

Timber (Wood)

A warm, natural feeling

Q-Windows wooden windows and doors offer a timeless and classic choice for exclusive homes and office spaces. Covered by our extended Q-Windows warranty this European system and combines German standard hardware with aged wood from Canada guarantees a long lasting high quality feel and exclusive appearance.

Wood has traditionally been the number one choice for builders and homeowners for many years.

Natural raw material

Thickness of up to 68 mm

Natural beauty, cosy living

Top quality timber from US, Canada, Russia, AU

Outstanding insulation values

Complete freedom of colour, German paint

20.000 cycles without damages

All possible opening types

High grade German hardware

5+12A+5 mm double glazing

10 years operational warranty



Security



Noise-Isolation



Air con-Reduction

	Class	Value	Test Method
Sound Insulation performance (dB)	2	32	DIN EN 20140
Rain impact resistance (Pa)	C7	450	DIN EN 12208
Air permeability (m³/h m)	4	0,3	DIN EN 12207
Security Class	Standard	-	DIN EN 1627
Thermal protection (W / m²K)	-	2,7	DIN EN 10077



WINDOWS

Our Standard. Your Style.

Q-Windows Building Elements are created with great attention to detail, guaranteeing that we manufacture not only examples of exceptional craftsmanship but also include the very latest technology and 21st century innovations.

By following German production guidelines and International Standards our products will bring you prestige, luxurious living and add significant value to your home.

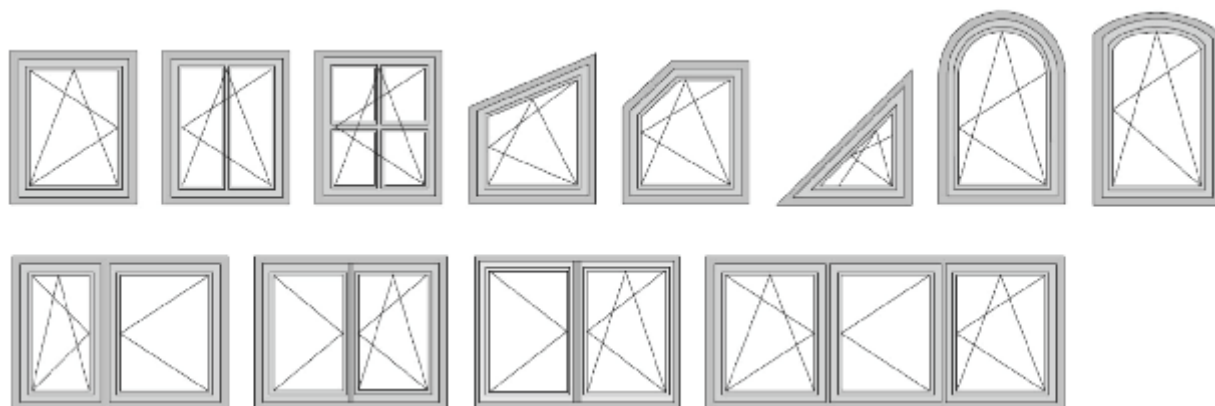




Inward Opening

Inward Opening System

Window and Door Arrangements



Profile Materials / Series

	Series	Profile	maximum Load	Catalog Page
Pure Wood	WT 58	58 mm	130 kg	9
Aluminum Wood	AWIT 58	58 mm	130 kg	7
Aluminum with thermal Break	AIT 50	50 mm	130 kg	5

Highlighted Series are manufactured in overseas,
please expect longer delivery times.

Features

- German hardware
- Integrated mishandling device
- Hand adjustable roller sealing cams
- Sash weight up to 130 kg
- Elements up to 2,3 x 1,7 m possible

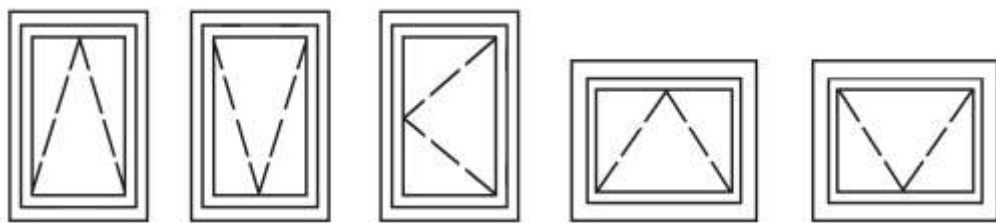




Outward Opening

Outward Opening System

Window Arrangements



Profile Materials / Series

	Profile Series	Profile	Load	Catalog Page
Aluminum Wood	AWIR 68	68 mm	37-150 kg	7
Aluminum	AR 50	50 mm	37-150 kg	5
Aluminum with Thermal Break	AIR 50	50 mm	37-150 kg	5
Aluminum without Thermal Break	AR50	50 mm	37-150 kg	1

Highlighted Series are manufactured in overseas,
please expect longer delivery times.

Features

Side Hung

Sash weight up to 47 kg (ROTO Sterling)
Min. sash height of 280 mm, Max. sash width 838mm

Top Hung

Sash weight up to 150 kg (ROTO Sterling)
Min. sash height of 267 mm





Horizontal Sliding

Horizontal Sliding System

Window and Door Arrangements

Scheme A



Scheme D



Scheme C



Scheme F



Scheme G



Scheme H



Scheme K



Profile Materials / Series

	Profile Series	Profile	Maximum Load	Catalog Page
Aluminum with thermal Break	AIS 60	60 mm	60 kg	5
	AIL 120	70 mm	100 kg	5
Aluminum	AS 60	70 mm	60 kg	5

Highlighted Series are manufactured in overseas,
please expect longer delivery times.

Features

Smooth operation

Elegant look with large glass areas

High performance gaskets for maximum tightness

Sash weight up to 120 kg

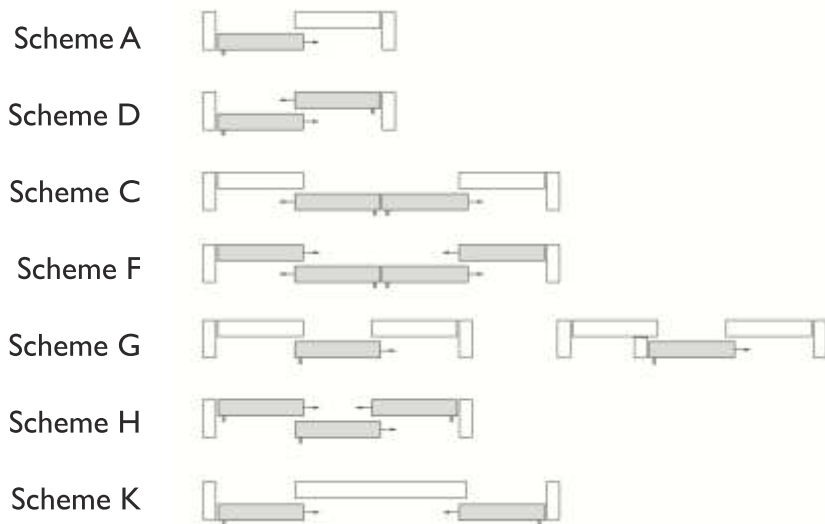




Lift & Slide

Lift & Slide System

Door Arrangements



Profile Materials / Series

	Profile Series	Profile	Maximum Load	Catalog Page
Wood	WT 58	58 mm	300 kg	9
Aluminum Wood	AWIT 58	58 mm	200 kg	7
Aluminum with Thermal Break	AIL 120	70 mm	200 kg	5
	AIL 145	70 mm	300 kg	5

Highlighted Series are manufactured in overseas, please expect longer delivery times.

Features

- German hardware
- Smooth operation
- Elegant look with large glass areas
- High performance gaskets for maximum tightness
- Elements up to 2,7 m high and 3,2 m width
- Sash weight up to 300 kg

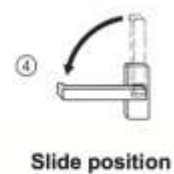
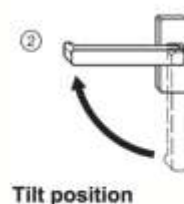
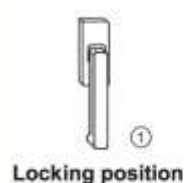




Tilt & Slide

Tilt & Slide System

Door Arrangements



Profile Materials / Series

	Profile Series	Profile	Maximum Load	Catalog Page
Wood	WT 58	58 mm	180 kg	9
Aluminum Wood	AWIT 58	58 mm	180 kg	7

Highlighted Series are manufactured in overseas,
please expect longer delivery times.

Features

German hardware

Recommended for buildings > 8 m

Match the standards for wind- and air tightness

Smooth operation

Elegant look with large glass areas

Sash weight up to 180 kg

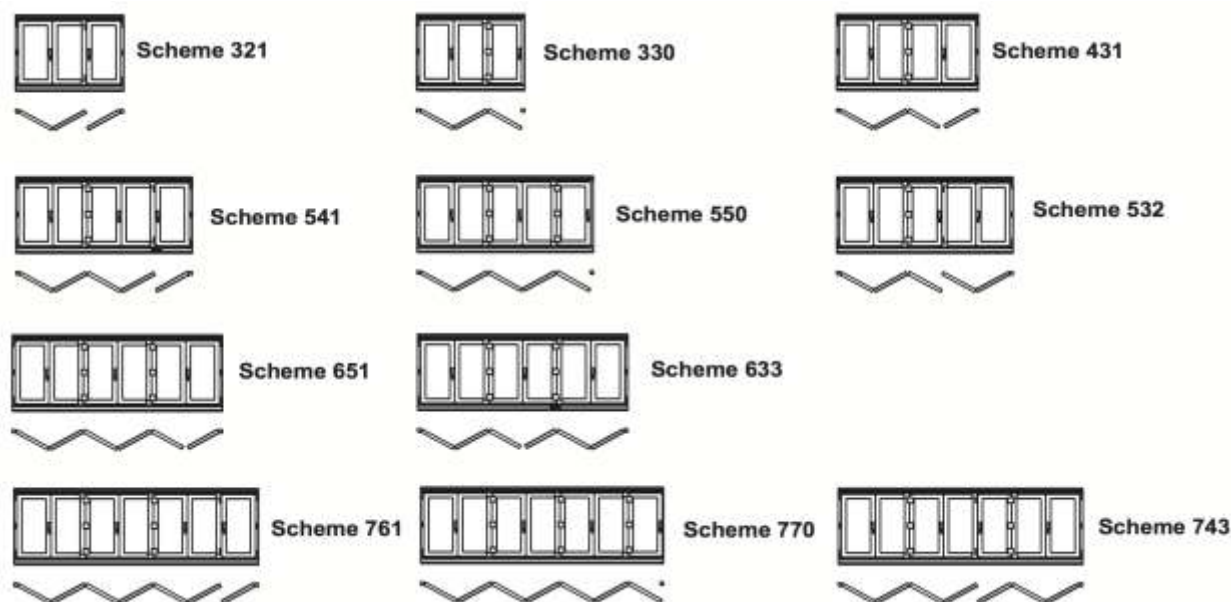




Sliding & Folding

Sliding & Folding System

Door Arrangements



Profile Materials / Series

	Profile Series	Profile	Maximum Sash Weight	Catalog Page
Wood	WT 58	58 mm	80 kg	9
Aluminum Wood	AWIT 58	58 mm	80 kg	5
Aluminum with Thermal Break	AIR 50	50 mm	80 kg	5

Highlighted Series are manufactured in overseas,
please expect longer delivery times.

Features

- German hardware
- Integrated mishandling device
- Hand adjustable roller sealing cams
- Sash weight up to 80 kg (single sash)
- Elements up to 2,3 x 6,5 m possible





Q WINDOWS

Specification & Hardware

Specification and Hardware

Sound insulation performance

Adversely affecting the lives of millions of people, noise pollution can lead to health issues such as sleep deprivation, high blood pressure and higher stress levels. Sound insulation technology has become a major factor when choosing the most suitable solutions for windows and doors.

Glass designed for acoustic insulation cuts out excess sound and the harmful effects of noise and is particularly effective in buildings in high traffic, built up urban environments.

Noise levels are measured in decibels (dB). A comfortable sound level is around 35 dB in daytime and 30 dB at night.

To calculate the required sound insulation of the window, it's necessary to know the outside noise level and the purpose of the room inside.

Expectable noise levels depend on usage:

Sleeping & Clinic rooms:	< 30 dB
Living & Hotel rooms:	< 35 dB
Offices & School rooms:	< 40 dB
Restaurants & Shopping malls:	< 50 dB

The sound insulation class of windows refers to the ability of a closed or fixed window to reduce external noise entering the residence.

Sound insulating class (DIN EN 20140)	1	2	3	4	5	6
Reduction volume (dB)	25-29	30-34	35-39	40-44	45-49	> 50

To reduce the noise from road level (75 dB) to living room level (35 dB), you will have to use a window in sound insulating class 3 or higher.



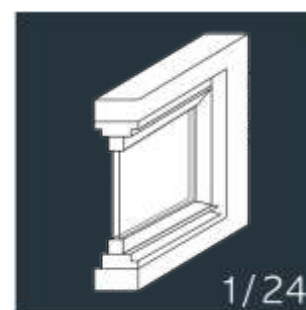
An open Window let's all noise inside the house. That's about 75dB with heavy traffic.



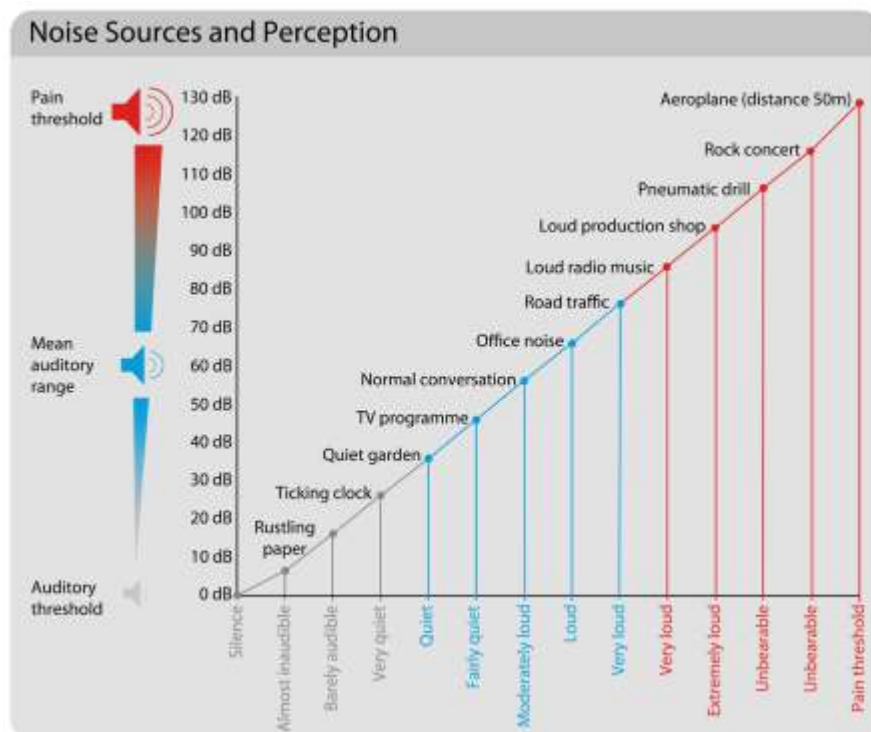
An single-glazed Window can only isolate about 20dB. Living in a modern urban environment requires a better quality of insulation.



Window with Standard-Insulating-Glass reach up to 32dB and reduce the noise to 1/10th.



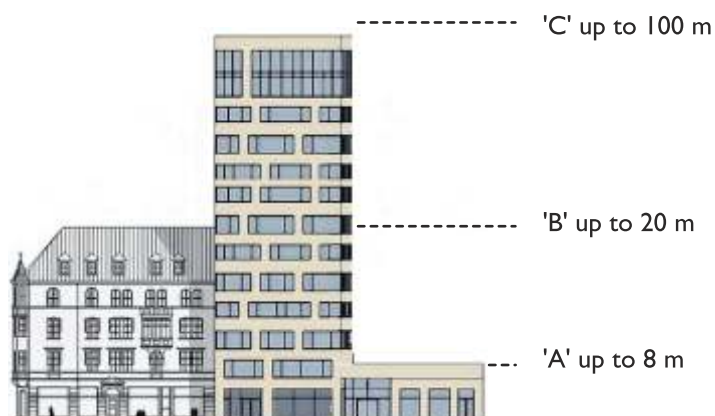
A Window with Noise-Insulating-Glass can reach up to 45dB. That means the outside noise will be reduced to 1/24th.



Window performance categories

In accordance to the height of the building, the necessary window performance can be divided into 3 groups.

	A	B	C
Dynamic pressure (PA)	< 150	< 300	< 450
Wind force (Beauford Scale)	< 7	< 9	< 11
Building height (m)	< 8	< 20	< 100



Rain Permeability Performance

Coastal regions and high-rise buildings are susceptible to high winds. Poor insulation leads to water leakage and can compromise a building's integrity, making maintenance impractical and demolition the only option. The following table will give you a better idea of the DIN Standard* and what you should take into consideration before you purchase your window.

Category	Water Pressure (PA)	Class (DIN EN 12208)	Requirements (Test time w/o leakage)
A	0	1	15 min
	50	2	20 min
	100	3	25 min
	150	4	30 min
B	200	5	35 min
	250	6	40 min
	300	7	45 min
C	450	8	50 min
	600	9	55 min

For a 8 meter high building:

Class 'A' Window is recommended under Wind force 7. The required time without water leakages has to be up to 30 minutes.

For a 25 meter high building:

Class 'C' Window is recommended under Wind force II. The required time without water leakages has to be up to 55 minutes.

Air Permeability Performance

Air leakage also affects the performance of the windows and has a side effect of the so called 'singing window' whereby you hear a constant noise while the wind passes through the window sealings. Cracks increase the cooling load in air conditioned buildings leading to more expense and an increased environmental impact.

Class DIN EN 12207 shows how many m³ of air flows into the building per window metres and hours.

Class (DIN EN 12207)	1	2	3	4
Performance (m ³ /h m)	12.5	6.75	2.75	0.75

Thermal Protection Performance

The Window Energy Ratings system was created to inform you of how energy-efficient your windows are. Similar energy ratings are applied to household appliances, white goods and light bulbs.

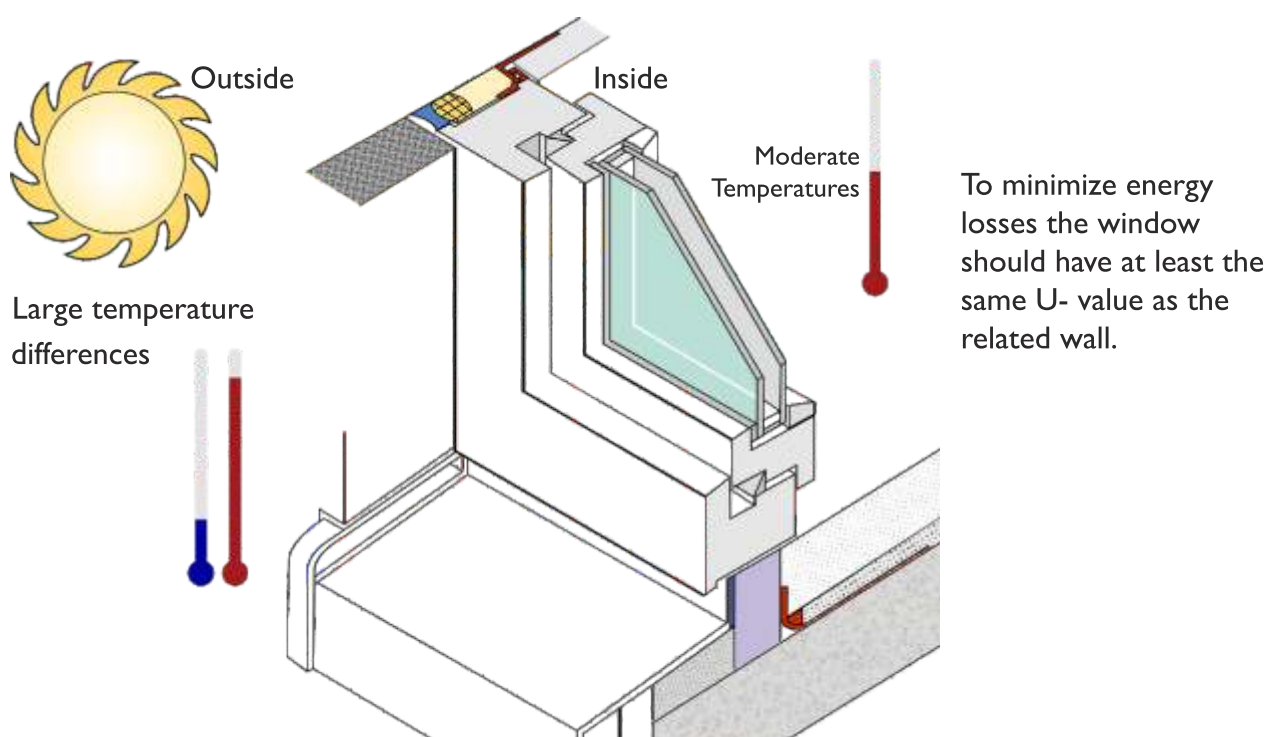
More people are opting for A-rated windows by installing energy-efficient glass into their existing window frames. The main purpose of energy efficiency is to increase the effectiveness of heating and cooling systems. (Consider the fact that up to 30% of the heat/cool air within most homes escapes through the windows).

Energy efficiency benefits the homeowner financially, reduces CO₂ emission and is less harmful to the environment.

Building Element	Thickness	U value W/ (m ² K)
Wall (concrete)	25 cm	3,3
Wall (bricks)	24 cm	1,5
	12 cm	2,9
Wall (solid wood)	20 cm	0,6
Window (Single glazing)	4 mm	5,9
	6 mm	5
Window (Double glazing)	5+12+5 mm	2,2-2,8

U-Value is the measure of the rate of heat loss through a material. The lower the U-Value, the less heat/cool air needlessly escapes. It is indicated in units of Watts per Meter Squared per Degree Kelvin or W/m²K.

E.g. Single glazed windows have a typical U-Value of 5.6 while double glazed windows have a typical U-Value of 2.8.

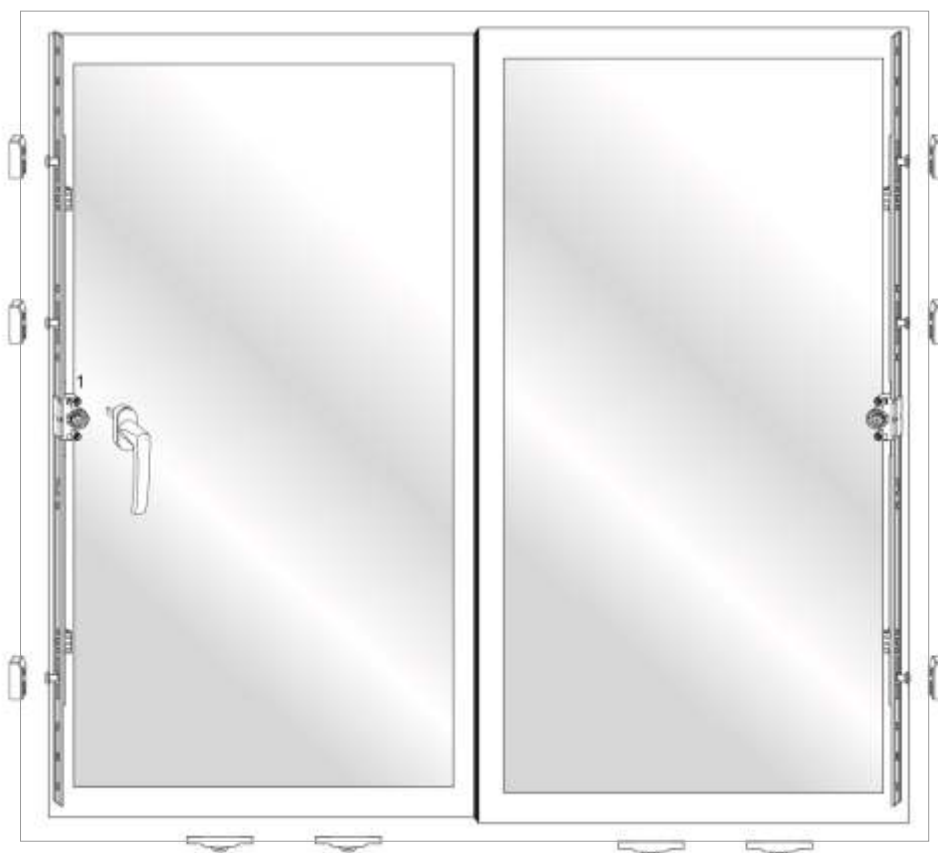


* DIN is a series of technical standards originating in Germany and used internationally

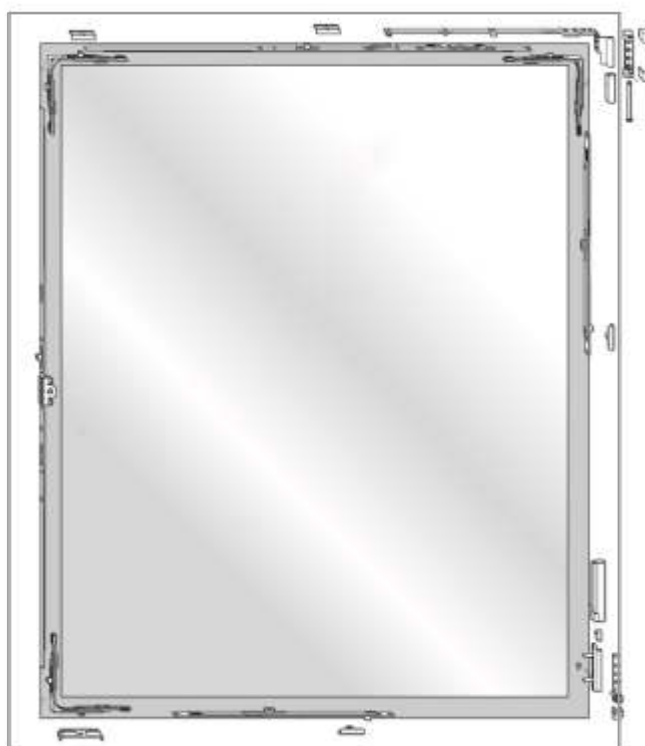
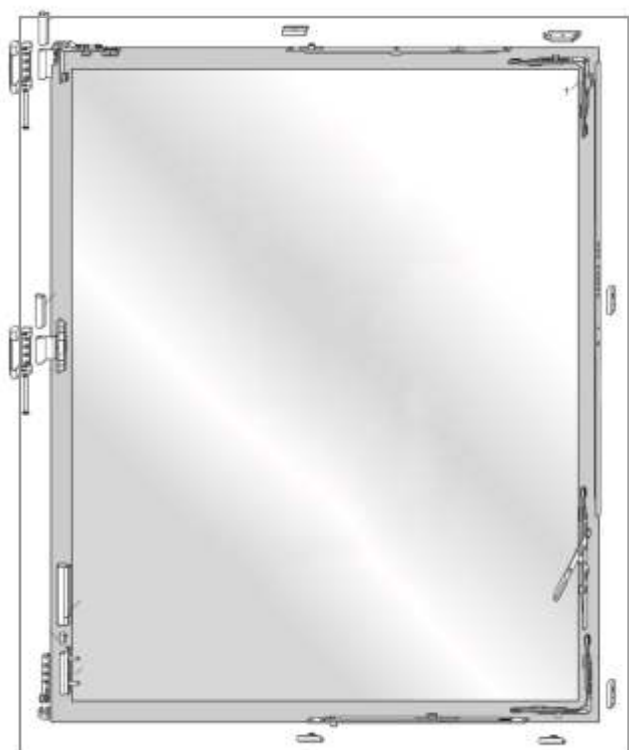
Outward Opening



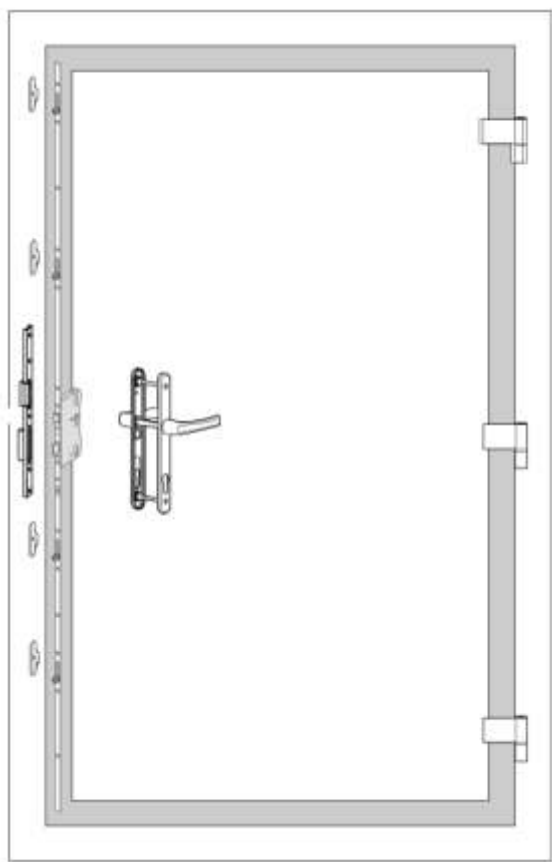
Sliding



Tilt & Turn



Door



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Technology

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