

# WINDOWS & DOORS

25<sup>YEARS</sup>  
BY YOUR SIDE



MIK windows.  
Windows that breathe.

Let's conserve energy. LET'S SAVE!

**mik**K  
QUALITY

**mik**   
INNOVATIONS

**mik**A<sup>+</sup>  
WARRANTIES

**mik**S<sup>+</sup>  
SERVICE

**mik**   
SALONS

  
**CELJE**



 [mik-ce.si](http://mik-ce.si)  
**VIRTUAL SHOWROOM**



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# About MIK



## Pushing the boundaries with MIK!

MIK, d.o.o. is a manufacturer and supplier of PVC, ALU and wooden windows and doors as well as a provider of **comprehensive IE<sup>2</sup> – investment, energy and esthetic solutions** for the glazing of existing and new buildings.

Our vision and goals are focused on the future and pertain to our slogan: **“pushing the boundaries”**. We are “pushing the boundaries” in the **quality of our products** as well as in our **innovative solutions** to better the quality of living and set new standards in the field of building glazing and energy efficiency.

Our company boasts **the most modern computer-guided production line**, ensuring identical and accurate production of each and every weld and product. Top quality is also expected from our suppliers, which is why we only **cooperate with the best manufacturers in their own field of window and door accessories**. We make sure to provide constant control over the quality of our products and services.

Our own production line, our hand-picked, regularly supervised suppliers and our development department provide us **complete flexibility** and guarantee you high quality, energy efficient and environmentally-friendly solutions for the glazing of your home regardless of its architectural specifics and your desires.

We are also leading experts in the field of window installation. In addition to traditional and ECO installation, we offer an energy efficient window installation developed by our own experts, called the MIK RAL installation. The production and installation of MIK windows and doors is entrusted only to highly trained experts that must adhere to high quality and proficiency standards. We offer fast and professional service as well as regular product maintenance.

Our main goal is to provide our costumers with investment, energy efficient, and esthetic solutions that will improve their quality of life.

## Turning challenges into success!

In our 25 years of existence we have grown and developed into a socially responsible company with 200 employees that takes pride in being awarded the **Recognized for Excellence Award (R4E)** by the European Foundation for Quality Management (EFQM). The incorporation of the EFQM excellence model into our strategy and the lives of our employees promises long-term success in goal achievement at home and ensures greater competitiveness in foreign markets.

The quality of MIK windows is ensured with a **long-term warranty, CE declaration of conformity** and the prestigious **Recognized for Excellence Award (R4E)**.

**Energy performance certificate for Grand Hotel Primus, Terme Ptuj**

**ENERGY PERFORMANCE CERTIFICATE**

OBJECT	Grand Hotel Primus in Terme Ptuj
LOCATION	Obala 18. avgusta 10, Terme Ptuj, Ptuj
CONTRACT NUMBER	PH-13
DATE OF ISSUE	14.02.2013
NAME OF PROJECT	Investment in the renovation of the building
DATE OF VALIDITY	14.02.2013 - 14.02.2015
CLIMATE DATA	Zone III
Temperature delta	18K, 20K, 22K, 24K, 26K, 28K, 30K
Building volume	100,000 m <sup>3</sup>

**COMPUTATIONAL ANNUAL NECESSARY HEAT DEMAND FOR NET USEABLE AREA FOR A BUILDING 5000 m<sup>2</sup> per year**

Low energy of energy: 15 kWh/m<sup>2</sup> per year  
 High energy of energy: 25 kWh/m<sup>2</sup> per year

Class: **31**

**Building energy performance certificate:**

- based upon calculated energy indicators
- The methodology of the pilot project 5.OP EU OPET Slovenia.
- Class is determined on the basis of calculating the annual heating energy required Q<sub>n</sub> [kWh/m<sup>2</sup> year].

Sava IP, d.o.o. <http://www.sava-ip.si>  
 Terme Ptuj, d.o.o. <http://www.termeptuj.si>

Logos: Sava Working Group Sava, TERME PTUJ, MIK CELJE, ZMK INSTITUT



Installation of windows and doors in new buildings



Ventilation system MIKrovent



MIK windows are class A energy efficient windows.

INGENUITY



## MIK Energy Windows

In addition to classic energy efficient windows, we have developed a special window system that is not only energy efficient but also improves the energy in the room. MIK Energy Windows differ from other window systems with the use of a special **MIK Energy-Disc** programmed according to original Poznik MOP technology. The MIK Energy-Disc contains an information cell that is encoded with an energy program that harmonizes the air and water in the room and gives them back their natural characteristics thus positively affecting the well-being of people, animals and plants. *More on MIK energy windows on page 8.*

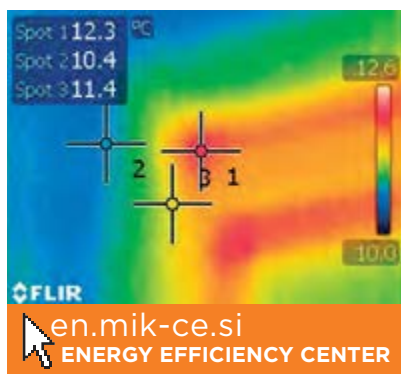
## MIKrovent®

Through cooperation with the experts from the field of energy efficiency we have developed a revolutionary window ventilation system. **MIKrovent enables energy efficient room ventilation while your windows remain closed. It ensures minimal heat loss and up to 87% heat recovery at a 100% air exchange within the room.** One of the key advantages of MIKrovent is that as a part of the frame extension profile it does not require any additional construction work on the building and therefore is suitable for new buildings as well as those under renovation. *More on MIKrovent on page 27.*

## MIK RAL Installation

**MIK RAL installation is an energy efficient installation** that prevents the infiltration of water into walls and thus the occurrence of condensation that damages the insulation capability of a window. Vapor impermeable mass FD 300 is used as a sealing material during RAL installation on the junction between the inner part of the wall and the window. The water-based open-cell foam sealant fills up the space between the frame and the wall, functioning as an excellent thermal insulator. *More on MIK RAL installation on page 46.*

ENERGY EFFICIENCY



## MIK's Energy Efficiency Center

Here at MIK we are proud to have our own **Energy Efficiency Center**. Our goal is to provide our customers with full support for energy efficient renovation or construction of their home. In addition to **taking thermovision measurements, doing energy efficiency diagnostics of the building** and **thinking up the best solutions for your home**, our Energy Efficiency Center is also oriented towards **the research and development of new products** that enable energy efficient living. *More on MIK's Energy Efficiency Center on page 24.*

## Energy Efficient Products

**MIK windows and doors fall under the class A energy efficient rating.** Some of our window systems meet all the standards of Slovenian Environmental Public Fund and entitle our customers to a non-refundable subsidy. Due to the outstanding thermal insulation of MIK windows and the high quality materials used in their production you are guaranteed substantial savings in the heating costs of your apartment or house. MIK windows provide you a high quality and energy efficient lifestyle. To learn more about how much money you can save with MIK windows, visit our website and get a personalized savings calculation for your apartment, house or office building.

ENVIRONMENT AND SOCIETY



## Environmental and Social Responsibility

In our daily operation we strive to exceed the standard business conduct and statutory regulations. We are earnestly trying to understand the needs of the environment in which we work and live. **We are convinced that by investing in continual development on the local and national levels we are building a firmer road to success. But success in itself is not a virtue if we do not share it with those in need of our help and invest in a brighter future for the generations to come.** We encourage the development of associations and individuals with donations and sponsorship money, but our main focus remains on long-term projects, where we can have the most significant effect on the largest number of individuals. The company's greatest success **is putting smiles on the faces of the 100 children** we take on a free vacation each year.

**Our production line is based on energy efficient machines and is designed on a "no waste" policy.** All the waste generated with the production of our windows and doors is 100% recyclable and reusable. Even this catalogue that you are browsing through right now is made out of eco-paper. Do not discard it! Give it to friends or acquaintances that may be interested in buying new windows or doors and help us preserve the environment.

Healthy and High Quality Ventilation  
Energy Efficiency  
Acoustic Insulation  
Burglary Protection  
Service and Regular Maintenance



Installation of windows  
and doors in new buildings



# MIK Windows



ARE CLASS  
A ENERGY  
EFFICIENT  
WINDOWS



FOR PASSIVE AND  
LOW-ENERGY  
CONSTRUCTION

Windows and doors not only define the appearance of your home but also affect your well-being and quality of life. With MIK windows you are guaranteed completely flexible and high quality solutions for the glazing of your home regardless of the material chosen.

## ADVANTAGES OF MIK WINDOWS



Numerous color  
and surface coating  
possibilities



Burglary protection  
fittings



Wide selection of  
materials, shapes  
and sizes



Thermal and  
acoustic insulation  
multilayer glazing  
available in  
different textures



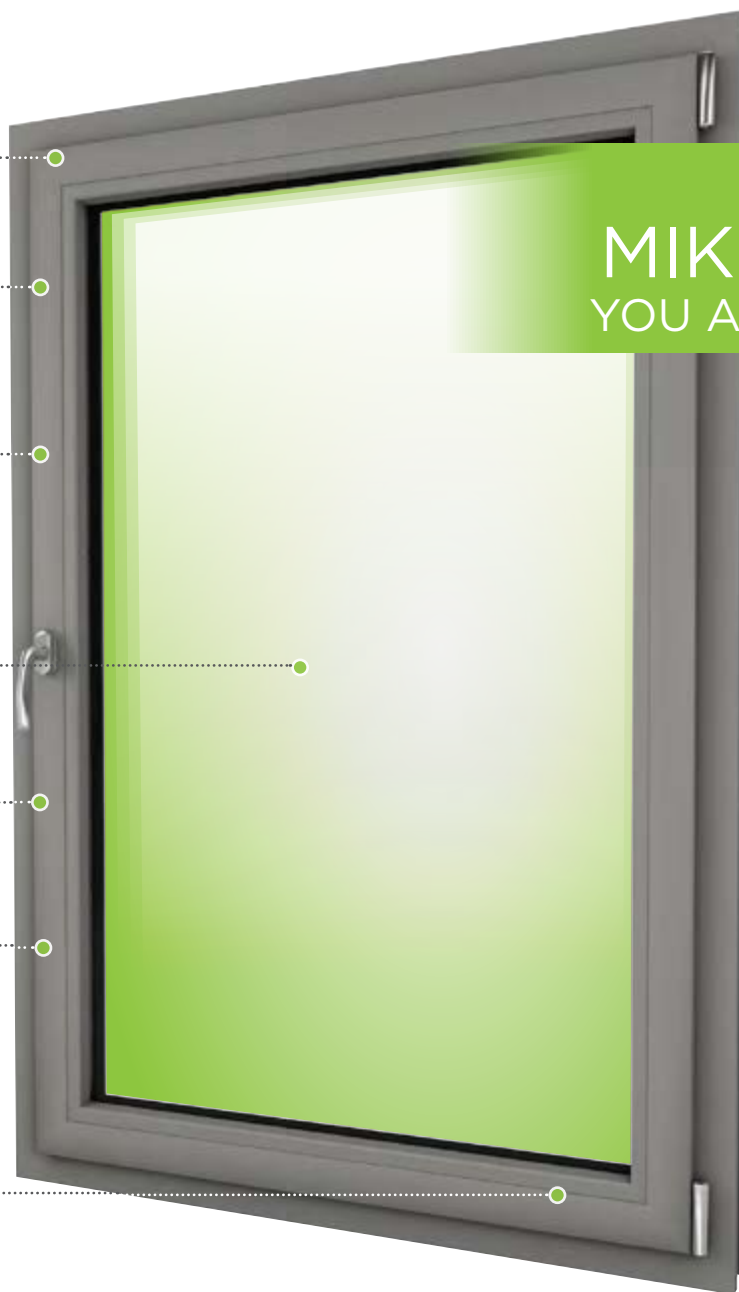
Durable and  
long-lasting window  
profiles



Environmental and  
human friendly  
materials



Improved acoustic  
and thermal  
insulation with  
high quality  
window seals and  
glazing spacers



WITH  
**MIK WINDOWS**  
YOU ARE GUARANTEED

- minimal heat loss
- high quality and energy efficient ventilation
- acoustic insulation
- durability
- high security
- simple maintenance
- color harmony between the exterior of the building and the interior of your home
- wide selection of window accessories: window blinds, shades and shutters, window sills, insect screens, window handles, sash bars,...



Installation of windows  
and doors in new buildings

[en.mik-ce.si](http://en.mik-ce.si)  
**WINDOWS**

Our topgrade production line guarantees outstandingly precise manufacture and finish of MIK doors and windows. High-quality installation according to RAL standards, superb service and longterm warranty provide you with significant savings, long useful life, low thermal losses, noise insulation, durability, security, and colour coordination with the building exterior and interior. All this combined is what defines good windows that will help raise your quality of living.

# How to choose the right windows?

To truly enjoy all the advantages of high quality living, you must take your desires and living habits into consideration and coordinate them with the natural environment and architectural specifics of the building already in the planning stages of a construction or renovation. Our highly trained team of experts will help you choose the windows that will improve the quality of your home while fulfilling your desires as well as architectural and environmental restrictions.

## We Offer:

PVC windows



Wooden windows



Wood/ALU windows



Aluminum windows



Cutting edge materials and modern technology enable us to produce high quality windows regardless of the material used. High quality PVC, wooden, wood/ALU and ALU windows have very similar acoustic and thermal insulation characteristics. So when deciding which windows to choose it is always good to know that the **sophisticated production and the high quality of the basic materials** are the **defining factors of good quality windows**. Every material, from plastic to aluminum, has its own characteristics that are used to satisfy your desires and expectations.



## ASSURANCE OF EXCELLENCE

**25+ YEARS**

More than 25 years of tradition and production experience.



Comprehensive offer of windows, doors and accessories (PVC windows, wooden windows, wood/ALU windows, ALU windows, interior and garage doors, conservatories etc.).



Our own development department and computer-guided production with product tracking



The use of top quality materials from the best, regularly supervised suppliers

Highly trained and experienced employees in production and installation

**mik**  
**WARRANTIES**

Efficient service across Slovenia

Long-term warranty on our products and services



Our products are in conformity with the European standards for protection of health, safety and environment and carry the CE marking



Our company received the prestigious Recognized for Excellence Award

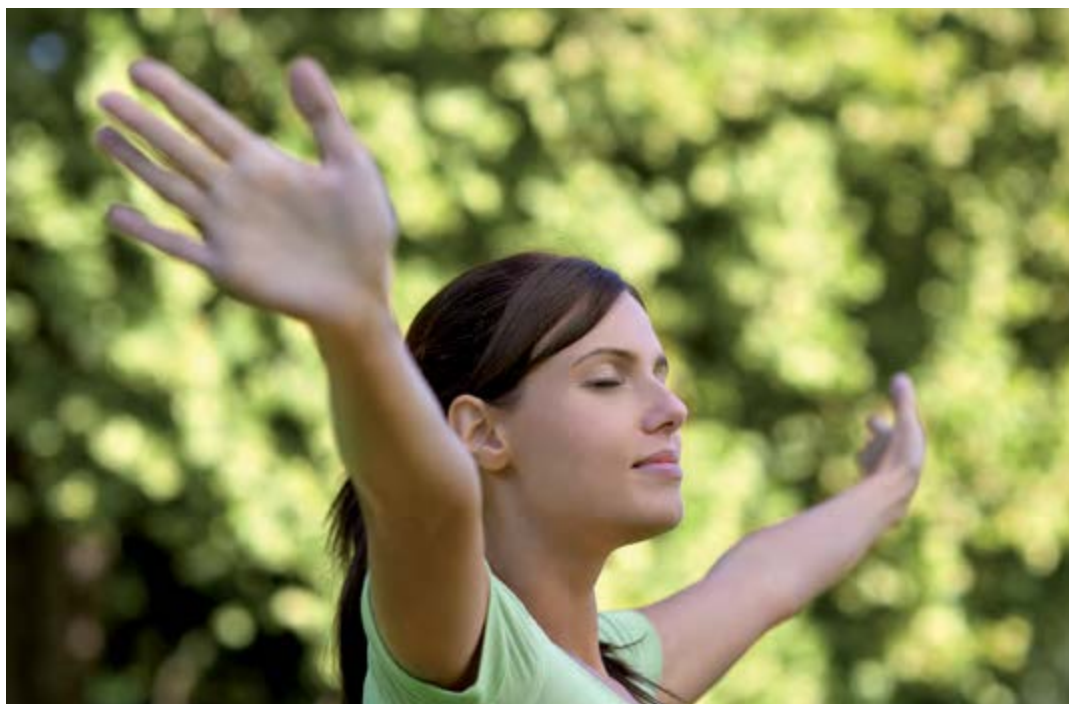
# MIK Energy Windows

On average, people today spend more than 80% of their time indoors. We are all surrounded by numerous electronic devices and appliances that pollute the air and generate harmful positively-charged ions that destroy the natural balance of the air in the room.



### MIK ENERGY-DISCS

are available independently and can be easily attached to your windows regardless of the material or shape.



Poor indoor air quality can result in exhaustion and loss of will.



### MIK ENERGY WINDOWS

Improve the air and water energy in the room and therefore:

- Cleanse the air
- Refresh the room
- Enhance and extend your concentration
- Reduce physical fatigue

Poor quality and energy-depleted air can result in feeling ill, working less efficiently and experiencing trouble concentrating and headaches, as well as a greater tendency to become sick.

High quality and healthy living conditions indoors can easily be achieved with **MIK Energy Windows**, which improve the air and water energy in the room and ensure a healthier and better living environment.

MIK Energy Windows differ from other window systems through the use of a special **MIK Energy-Disc** programmed according to the original Poznik MOP technology. **Mik Energy-Disc is encoded with a unique energy program that changes the chemical and physical properties of air and water in the room and gives them back their natural characteristics thus positively affecting the well-being of people, animals and plants.**

IMPACT	Increased water energy (%)	Increased air energy (%)
A room equipped with MIK Energy Windows	7,9	11,8
Ventilation	3,2	4,2
Ionizer	0,7	1,1

The effect of MIK energy windows, airing out and devices for air harmonisation on the energy of water and air in the room. The measurements and comparisons of the effects were performed by Prof. Dr. Peter Bukovec at the Institute for sustainable development (Inštitut za trajnostni razvoj).



MIK Energy Windows operate without interruption and do not require any additional energy.

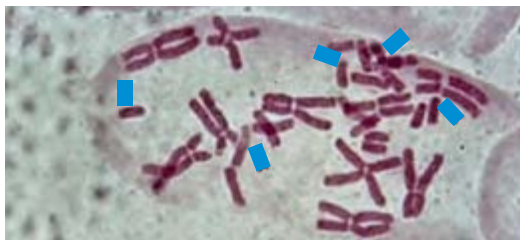
## MIK ENERGY WINDOWS IMPROVE YOUR WELL-BEING BY UP TO 40%

MIK Energy Windows are a result of long-lasting research in the field of encoding and transmission of information by a well-known Slovenian innovator Vili Poznik. **The impact of MIK Energy Windows on people's well-being has been tested by physical, biological and chemical methods.** The research

was carried out by independent experts; Prof. D.Sc. Peter Bukovec, Russian physicist D.Sc. Yuri Yatsko and biologist MSc. Peter Firbas. **All the research confirmed that MIK Energy Windows have a positive effect on all living beings.**

The research results of the ALLIUM test (the biological method that reveals the environment's influence on the growth and development of living cells within the organism) have shown that **the number of intact cells in an organism exposed to MIK Energy Windows was 46 percent higher** than in an organism not exposed to positive energy, in otherwise identical conditions.

### Microscopic images of damaged and intact cells



Damaged cell



Intact cell

### Photos of growth and development of bulbs tested with the ALLIUM test



The growth and development of bulbs **in a room without MIK Energy Windows.** The number of cells with chromosomal damage: **19%**



The growth and development of bulbs **in a room with MIK Energy Windows.** The number of cells with chromosomal damage: **10%**

### Photos of test subject's biofield using the Kirlian camera

The impact of MIK Energy Windows on a person's well-being was verified using the Kirlian camera, a camera that enables visualization of the human bio-electromagnetic field. The measured results show **up to 40% improvement in an average person's bioenergy.**

Bioenergy field of the test subject **before** exposure to MIK Energy Windows.



IMPACT  
**+40%**

Bioenergy field of the test subject **after** exposure to MIK Energy Windows.



For the optimal efficiency of Energy windows, **one energy disc should suffice for a room no bigger than 25 m<sup>2</sup>.**

**1**  
**25m<sup>2</sup>**

If the product does not meet your expectations, we will refund your money!

Take a photo of your plants before the installation of your MIK Energy-Disc and then another photo one month after the installation. Compare the two photos. If you don't notice any difference in the plants or in your own well-being, or if you are dissatisfied with our energy-disc, simply return it to our address and **you will be 100% reimbursed.**



# PVC Windows



FOR PASSIVE AND LOW-ENERGY CONSTRUCTION

are high quality windows with outstanding thermal and acoustic insulation made of vinyl. MIK PVC windows are structurally stable, durable, safe and easily maintained. You can choose from different shapes and types of windows as well as a wide selection of acrylic glass colors and wood decors.



<b>U<sub>f</sub></b> heat transfer of frame	<b>0.89</b> W/m <sup>2</sup> K	
<b>U<sub>g</sub></b> heat transfer glazing	0.6	0.4
<b>U<sub>w</sub></b> heat transfer window	<b>0.78</b>	<b>0.65</b>
Savings	less	<b>MORE</b>

Two extremely elastic and **durable window seals** in an elegant grey color ensure that the junction between the glass and the profile is completely sealed guaranteeing maximum thermal and acoustic insulation.

MIK windows come equipped with **top quality, modern and innovative window fittings**. Mushroom cams and striker plates are positioned all around the window frame and casement.

For improved weather resistance and longevity, **additional exterior aluminum skirt is available**.

**2 Glazing:** Standard triple glazing with thermal insulation up to U<sub>g</sub>=0.4W/m<sup>2</sup>K is available. (Optional with double glazing, with changed casement, but triple is recommended.)

**3** Excellent **sound insulation.**

**4** **Glazing spacers** are available in ALU, steel or PVC materials.

**11** **Metal reinforcement** that functions as a static rigidity enhancer is found in the profile core. The static rigidity of all window systems is **3x stronger than the normal level** (up to 7,9 cm<sup>4</sup>).



Glass bonded around the periphery of the wings **increases the static load** capacity.

**7** **With multi-chamber frame and sash** we can achieve better insulation properties.

**4** Thermally embedded tubular seals.

**The special geometric shape of the middle window seal** functions as additional protection from burglary and ensures a high quality sealing over the life-span of the window.

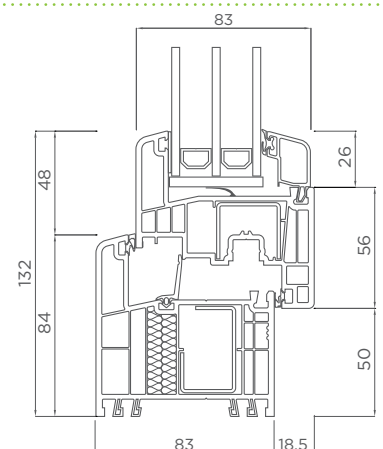


**83 mm**

## PVC ELEGANCE LINE TECHNICAL SPECIFICATIONS

- Window frame depth 83mm; Window casement depth 83mm;
  - Standard triple glazing, U<sub>w</sub>=0.78W/m<sup>2</sup>K; with U<sub>g</sub>=0.6W/m<sup>2</sup>K glazing according to EN 673, U<sub>w</sub>=0.65W/m<sup>2</sup>K; with U<sub>g</sub>=0.4W/m<sup>2</sup>K glazing according to EN 673 it is possible to install glazing with thickness from 24mm to 52mm (for other types of glazing, see pages 21-22).
  - Acoustic insulation up to 47dB (with proper glazing)
  - Thermally embedded tubular shaped window seals
  - All MIK windows come equipped with security Secustic handles**
  - Mushroom cams and striker plates are positioned all around the window frame and casement – basic security standard fittings (MIK windows are available also with RC2 security standard fittings upon request)
  - 6-chamber profile
  - Available in white color, RAL and wood decors
  - Available with MIKrovent® or Gecco ventilation systems
  - MIK experts recommend ECO or MIK RAL installation procedure
  - Also available with increased static reinforcement
  - Available with an additional ALU skirt for better weather resistance and longevity
  - Pristine PVC material without any admixtures of lead and cadmium
- U<sub>w</sub> – heat transfer coefficient of a window  
U<sub>g</sub> – heat transfer coefficient of glazing  
U<sub>f</sub> – heat transfer coefficient of frame

## CROSS SECTION

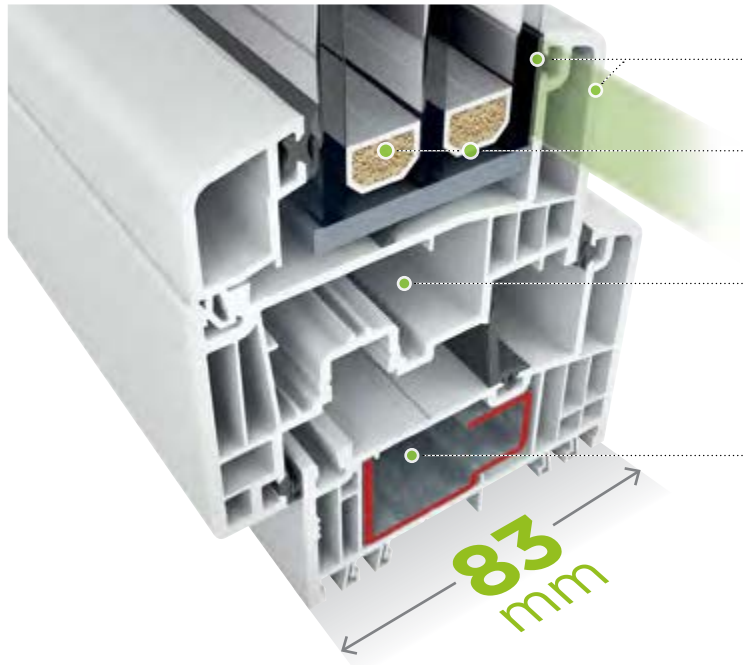


en.mik-ce.si  
**ELEGANCE LINE**



## Improved window static rigidity

Static3 PVC window system is a revolutionary novelty that enables **dry adhesion of glazing on the casement**. Affixed glazing all around the casement **improves static rigidity** of a window and enables the window casement to have no metal reinforcements and **thus additionally enhances the thermal insulation of the window**.



Affixed glazing all around the casement increases its **bearing strength**.

**Glazing spacers** are available in ALU, steel or PVC materials.

The window casement has **no metal reinforcement** due to the improved static rigidity of Static3 windows.

**Metal reinforcement** in the window frame provides additional support to the window and helps transfer the weight to the wall ( $1x=7,9cm^4$ ).

## ADVANTAGES

- Better thermal insulation of the window casement without metal reinforcement
- Increased burglary protection (affixed glazing all around the casement)
- Wider and taller window sizes
- Improved functionality and longevity of regular and irregular shape windows - **no window sagging**
- Enabled integration of thicker glazing and panels with improved thermal insulation

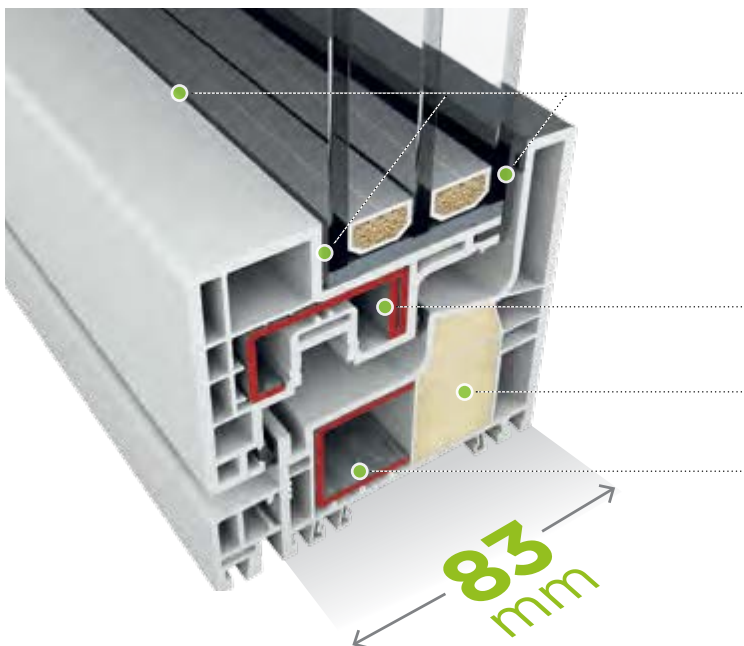
Maximum window frame size:

**1100x2500mm**



## Intensive Core Insulation

Intense PVC window system represents an upgrade of Static3 window system. It retains all the advantages of dry adhesion glazing and **additionally improves the static rigidity and thermal insulation of a window**. As with the Static3 window system the whole rigidity of a window casement is ensured with affixed glazing to such extent that the metal reinforcement is no longer necessary. Instead of metal reinforcement **the window casement core is filled with polyurethane foam that ensures intensive core insulation**. With this technology the heat transfer coefficient of a window frame can be lowered to  $U_f=1W/m^2K$ , thus achieving the heat transfer coefficient of a window ( $U_w=0,69W/m^2K$ ) specified for passive houses.



Glass panes are glued to the whole length of the sash frame for an increased **static load capacity**.

In larger windows, metal reinforcements are added to increase the static load capacity. The sashes in smaller windows **do not contain metal reinforcements** as the fixed glazing provides enough of a static load capacity.

A high-grade core insulation with a polyurethane foam filling provides for excellent insulation properties.

A **metal reinforcement** in the center of the window profile serves as an additional support.

## ADVANTAGES

- Better thermal insulation of the window casement without metal reinforcement
- Increased burglary protection (affixed glazing all around the casement)
- Improved functionality and longevity of regular and irregular shape windows - **no window sagging**
- Enabled integration of thicker glazing and panels with improved thermal insulation
- Intense window system is suitable for low-energy and passive houses

**$U_w=0,69W/m^2K$**

Maximum window frame size:

**1100x2500mm**



Kubus®





PVC WINDOWS	Comfort Extra Line	Comfort Line	Royal Line	Elegance Line	Kubus®
Number of air chambers	6	6	6	6	4
Window frame depth	83mm	83mm	83mm	83mm	83mm
Window casement depth	83mm	93mm	83mm	83mm	83mm
Glazing	4/16/4 Ug=1,1W/m²K	4/16/4 Ug=1,1W/m²K	4/18/4/18/4 Ug=0,5W/m²K	4/18/4/18/4 Ug=0,5W/m²K	4/18/4/18/4 Ug=0.5W/m²K
Glazing thickness	24-52mm	24-52mm	24-52mm	24-52mm	48mm
Thermal insulation with standard glazing	1.2W/m²K	1.2W/m²K	0.72W/m²K	0.71W/m²K	0.84W/m²K
Max. thermal insulation	up to 0.7W/m²K	up to 0.7W/m²K	up to 0.66W/m²K	up to 0.65W/m²K	up to 0.69W/m²K
Fittings	Basic security - with optional upgrade	Basic security - with optional upgrade	Additional security - with optional upgrade	Additional security - with optional upgrade	Additional security - with optional upgrade also hidden fittings
Colors	White and acrylic colors	White and décor colors	White and acrylic colors	White, acrylic and décor colors	Acrylic colors
No. of seals	2	2	3	3	3
 For passive and low-energy construction.	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓
	✗	✗	✗	✓	✓
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✗
	✓	✗	✓	✓	✗
	Option with a surcharge.	Option with a surcharge.	Optional adhesive Energy-Disc with a surcharge.	Optional adhesive Energy-Disc with a surcharge.	Optional adhesive Energy-Disc with a surcharge.

# Be playful with the colors of your windows and blinds

Your PVC windows are available in wide selection of colors from shiny acrylic glass colors, perfect wood decors and classic white to a special silver acrylic color that gives your windows the appearance of silver aluminum. Certain MIK PVC window systems enable you to choose different exterior and interior window colors. Wood décor in the interior, acrylic color in the exterior - why not? Let your imagination run wild and create your dream home with ease.

## Shiny and lasting acrylic glass colors

Acrylic glass colors are an excellent choice if you want colorful windows that will retain their shine and are easily maintained. Colored acrylic glass that is fused in a special process with the basic PVC profile material not only ensures a shiny color but also an amazing resistance to scratches and other damages.



Acrylic glass



### STANDARD COLORS from RAL color chart



RAL 9007



RAL 7016



RAL 8014



DB 703

### NONSTANDARD COLORS from RAL color chart



RAL 3011



RAL 6009



RAL 7015



RAL 7039



RAL 7040



RAL 8022



RAL 9006



RAL 9010

### 20-YEAR WARRANTY ON ACRYLIC GLASS COLORS

PVC windows with acrylic glass coating are extremely resistant to scratches and dirt and are very easy to clean. **We offer you a 20-year warranty on the durability of acrylic glass colors.** If you want your windows to have all the advantages of PVC windows and the appearance of aluminum, we suggest the special **silver acrylic glass color RAL 9007 to give your windows the appearance of silver aluminum.**

WITH PVC  
WINDOWS YOU  
CAN CHOOSE  
FROM

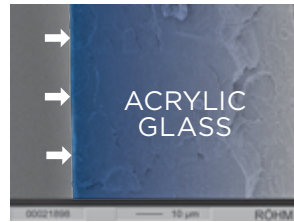
- Shiny and lasting acrylic glass colors
- Perfect wood décors
- Classic white color

**20**  
YEAR  
WARRANTY

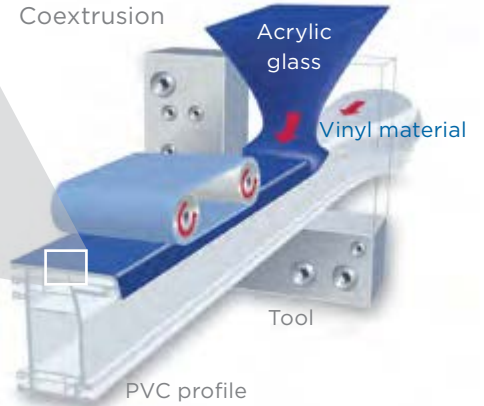
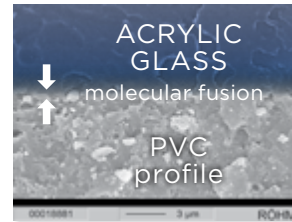


## Resistant to scratches and other damages

cross-section of the acrylic glass surface after 20 years



The fusion of acrylic glass and vinyl material (molecular fusion), identical material expansions, acrylic glass material hardness 175Nmm<sup>2</sup>

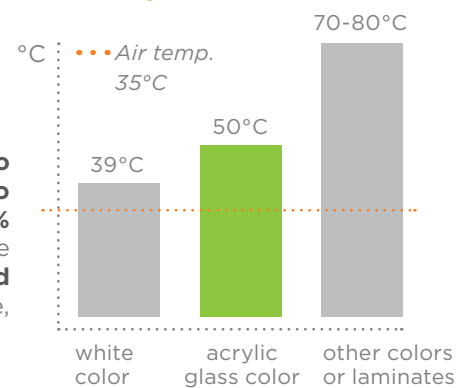


## Acrylic glass advantages

Colored acrylic glass that is fused in a special process of coextrusion with the basic PVC profile material offers many advantages:

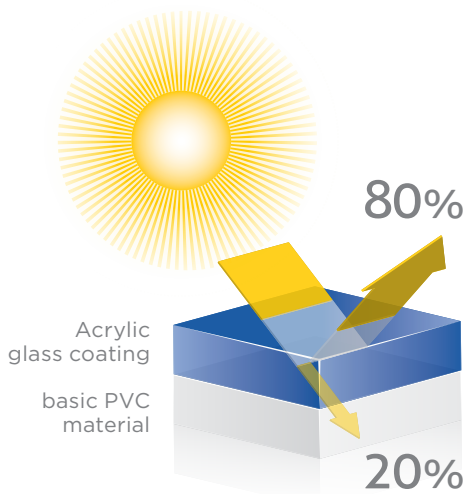
- Extreme **resistance to scratches and other damages, chemicals and cleaning products**
- **Resistance to aggressive weather conditions** (salt, sulfur, etc.)
- **Easy for cleaning and maintenance**
- **Easy repairs of scratches on the color coating**
- Acrylic glass is a 100% recyclable material

## Profile temperatures



## Resistant to high temperatures

PVC windows with acrylic coating are **more resistant to high temperatures**. Acrylic glass coating **deflects up to 80% of the sun's rays** and keeps these windows up to **40% cooler** than **varnished or laminated windows**. Therefore acrylic glass coated windows **expand, contract and bend significantly less** at the same outside temperature, ensuring consistent energy efficiency of the building.

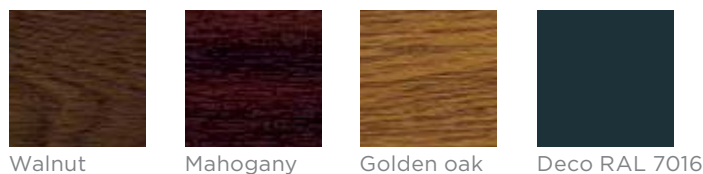


## The wood decors give PVC windows the appearance of wood

The wood decors give your PVC windows the appearance of wood. Laminated PVC windows are recommended especially for renovations of old houses to preserve the architectural design of the building. High quality PVC windows are available in 4 standard and 19 nonstandard wood decors applied to either the exterior or the interior of your windows. More on wood decors at [en.mik-ce.si](http://en.mik-ce.si) or at your nearest showroom.

[en.mik-ce.si](http://en.mik-ce.si)  
PVC WINDOW COLORS

## STANDARD WOOD DECORS



## CHOOSE YOUR COMBINATION

	EXTERIOR	INTERIOR
wood decor	wood decor	White
white	white	wood decor
wood decor	wood decor	wood decor
acrylic	acrylic	White
acrylic	acrylic	wood decor

## Wood décor in the interior, acrylic glass color in the exterior

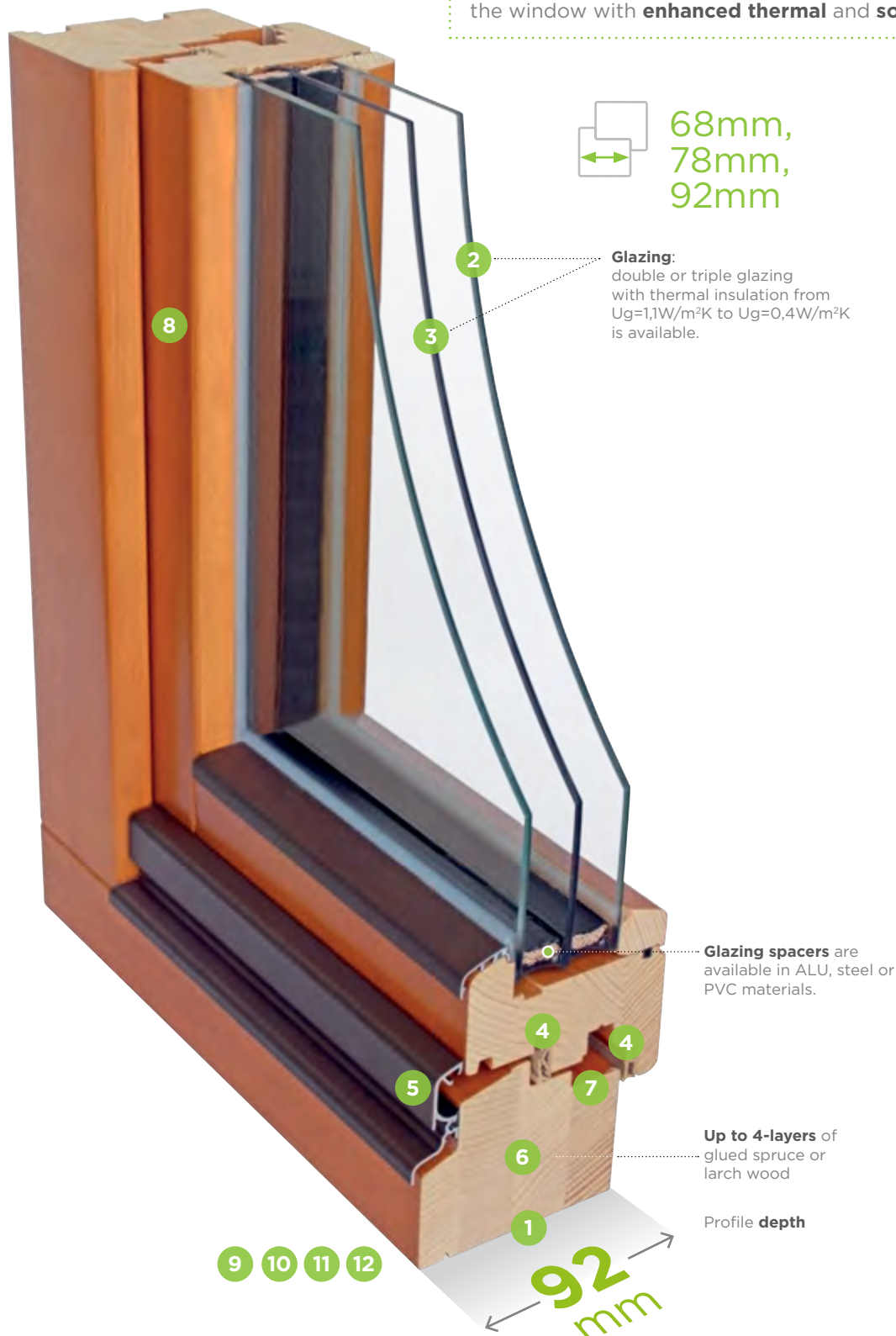
Certain MIK PVC window systems enable you to choose different exterior and interior window colors. Different color material combinations are available in the following MIK PVC window system **Royal Line**.



# Wooden windows

High quality wood, modern production technology and thicker environmentally-friendly color coatings ensure the longevity and durability of wooden windows. Superior wooden windows offer optimal thermal and acoustic insulation as well as help to create a pleasant living environment.

Wooden MIK windows are available in two frame dimensions. In addition to the standard installation depth of 68mm, windows with installation depths of 78mm and 92mm are also available. The increased depth of the wooden frame provides the window with **enhanced thermal and sound insulation properties**.



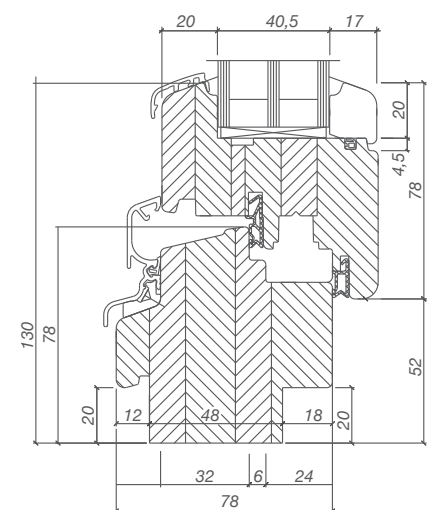
## WOOD COMFORT LINE 80M

### TECHNICAL SPECIFICATIONS

- 1 **Profile depth:** 78mm  
(frame depth: 78mm, casement  
depth: 78mm)
- 2 **Thermal insulation**  $U_w=0,98W/m^2K$   
with  $U_g=0,6W/m^2K$  glazing by EN673  
standards
- 3 **Acoustic insulation** up to 44dB  
(with proper glazing)
- 4 **Double sealing**
- 5 **Water drainage system** and  
casement ALU coating with  
permanently elastic end caps
- 6 3-layer glued spruce wood
- 7 **Basic security** fittings
- 8 Color from the color chart on page 16
- 9 Warranty: page 51
- 10 Optional with **hidden fittings**
- 11 Optional with **RC2 security** standard
- 12 Optional with **locking and opening  
monitoring**

$U_w$  - heat transfer coefficient of a window  
 $U_g$  - heat transfer coefficient of glazing

### CROSS-SECTION



en.mik-ce.si  
**WOOD WINDOWS**



## WOODEN WINDOWS

	WOOD Comfort line 70	WOOD Comfort line 80G	WOOD Comfort line 90M
Type of wood and number of glued layers	Spruce or larch 3-layers	Spruce or larch 3-layers	Spruce or larch 4-layers
Window frame depth	68mm	78mm	92mm
Window casement depth	68mm	78mm	92mm
Glazing	4/16/4 Ug = 1,1W/m <sup>2</sup> K	4/14/4/14/4 Ug = 0,5W/m <sup>2</sup> K	4/18/4/18/4 Ug = 0,5W/m <sup>2</sup> K
Max. glazing thickness	31mm	40mm	55mm
Thermal insulation with standard glazing	1,3W/m <sup>2</sup> K	0,98W/m <sup>2</sup> K	0,9W/m <sup>2</sup> K
Maximum thermal insulation	1W/m <sup>2</sup> K	0,85W/m <sup>2</sup> K	0,77W/m <sup>2</sup> K
Fittings	Basic security	Basic security	Basic security
Colors	MIK color chart	MIK color chart	MIK color chart

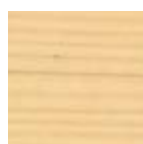
## Wooden window colors

**MIK wooden windows are protected from the harsh environment with thick environmental-friendly coatings produced from a water base.** The coatings protect the wood from aging, enhance its beauty, give it its distinct look and help to preserve its typical structure. They are available in a wide selection of colors that enable your windows to perfectly match the exterior as well as the interior of your home.



colors

### STANDARD COLORS



Natural spruce



light spruce



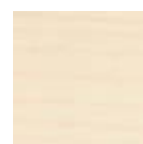
light pine



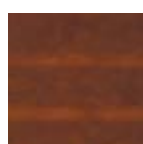
pine



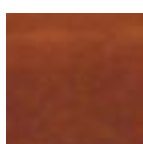
dark oak



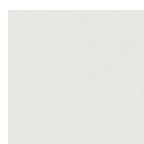
antique white



light walnut



mahogany



white  
RAL 9016



green  
RAL 6005

# Wood/ALU windows

MIK wood/ALU windows are high quality wooden windows enriched with an ALU skirt. They are a perfect example of windows made from natural and durable materials. The combination of wood and aluminum ensures a long life-span and durability as well as provides optimal thermal and acoustic insulation.



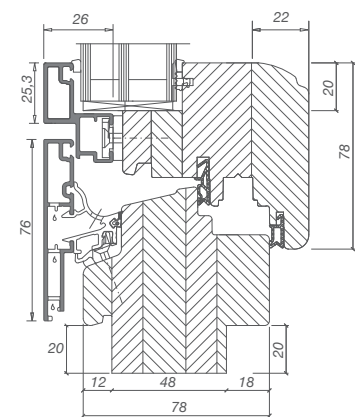
## WOOD/ALU ELEGANCE LINE 80 MIK4

### TECHNICAL SPECIFICATIONS

- 1 **Profile depth:** 95mm (frame depth: 95mm, casement depth: 109mm)
- 2 **Thermal insulation**  
 $U_w=0,93W/m^2K$  with  $U_g=0,6W/m^2K$  glazing by EN673 standards
- 3 **Acoustic insulation up to 44dB** (with proper glazing)
- 4 **Triple sealing**
- 5 Exterior: **ALU skirt** with modern angular design and **water drainage system**; Interior: **wood**
- 6 3-layer glued spruce wood
- 7 **Basic security fittings**
- 8 Color from the color chart on page 20
- 9 Available with **hidden fittings**
- 10 Available with **RC2 security standard**
- 11 **A patented system for draining water** from the window sill
- 12 Available with **MIKrovent' ventilation system**

$U_w$  - heat transfer coefficient of a window  
 $U_g$  - heat transfer coefficient of glazing

### CROSS-SECTION



[en.mik-ce.si](http://en.mik-ce.si)  
WOOD ALU WINDOWS



## WOOD/ALU WINDOWS

	WOOD-ALU Elegance Line 80 MIK2	WOOD-ALU Elegance Line 90 MIK4
Type of wood and number of glued layers	Spruce or larch 3-layers	Spruce 3-layers
Window frame depth	95mm	109mm
Window casement depth	85mm	124mm
Glazing	4/14/4/14/4 Ug = 0,6W/m <sup>2</sup> K	4/18/4/18/4 Ug = 0,5W/m <sup>2</sup> K
	48mm	71mm
Thermal insulation with standard glazing	0,93W/m <sup>2</sup> K	0,92W/m <sup>2</sup> K
Maximum thermal insulation	0,74W/m <sup>2</sup> K	up to 0,73W/m <sup>2</sup> K
Fittings	Basic security	Basic security
Colors	MIK color chart	MIK color chart

## WOOD COLORS

**MIK wooden windows are protected from the harsh environment with thick environmentally-friendly coatings produced on a water base.** The coatings protect the wood from aging, enhance its beauty, give it its distinct look and help to preserve its typical structure. They are available in a wide selection of colors that enable your windows to perfectly match the exterior as well as the interior of your home.



## SELECTION OF WOOD COLORS

Check page 16 – standard wood colors 

## ALU SKIRT COLORS



RAL 5014



RAL 6005



RAL 7016



RAL 7035



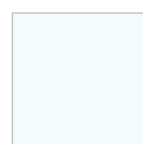
RAL 8001



RAL 8003



RAL 8017



RAL 9016

MIK window ALU skirts are also available in all the colors from the RAL/NCS color charts.

# ALU windows

MIK ALU windows are extremely high quality, durable windows suitable for installation in very harsh weather climates. The additional thermal insulation material considerably increases the thermal insulation capability of MIK ALU windows. They are especially suitable for glazing larger wall openings because of their increased static rigidity. MIK ALU windows are also very easy to use and maintain.



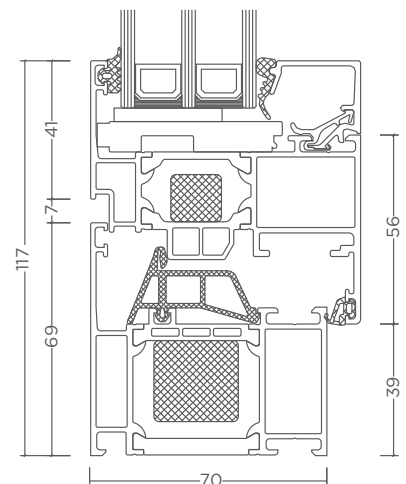
## ALU ELEGANCE LINE

### TECHNICAL SPECIFICATIONS

- 1 **Profile depth:** 70mm (frame depth: 70mm, casement depth: 80mm)
- 2 **Thermal insulation**  
 $U_w=1,1W/m^2K$  with  $U_g=0,6W/m^2K$  glazing by EN673 standards;  $U_w=0,96W/m^2K$  with  $U_g=0,4W/m^2K$  glazing by EN673 standards (more on glazing options on page 21)
- 3 **Acoustic insulation** up to 47dB (with proper glazing)
- 4 **Double sealing**
- 5 **Thermal break** (38mm)
- 6 **Hidden window fittings** with **basic security** (available also with **RC3** security class)
- 7 Available in any color from the RAL/NCS color chart or with anodized coating
- 8 Optional with **Tip Tronic system**
- 9 Optional with **MIKrovent® ventilation system**
- 10 **Warranty:** on page 51

$U_w$  - heat transfer coefficient of a window  
 $U_g$  - heat transfer coefficient of glazing

### CROSS-SECTION





## ALU WINDOWS

	ALU Elegance Line	ALU Comfort Line
Thermal break	38mm thick	29mm thick
Window frame depth	70mm	67mm
Window casement depth	80mm	77mm
Glazing	4/14/4/14/4 Ug = 0,6W/m²K	4/14/4/14/4 Ug = 0,6W/m²K
Max. glazing thickness	60mm	50mm
Thermal insulation with standard glazing	1,1W/m²K	1,5W/m²K
Maximum thermal insulation	up to 0,96W/m²K	up to 1,00W/m²K
Fittings	Basic security (with optional RC3 security upgrade)	Basic security (with optional RC3 security upgrade)
Colors	RAL/NCS color chart or anodized coating	RAL/NCS color chart or anodized coating

## ALU window colors

MIK ALU windows are available in wide selection of lasting colors. A special coloring process called **powder coating** makes the profile surface of your ALU window extremely resistant and is available in any color **from the RAL/NCS color chart**. You can also choose **different color combinations** for the interior and exterior of your window. MIK ALU windows are also available **with an anodized coating**.

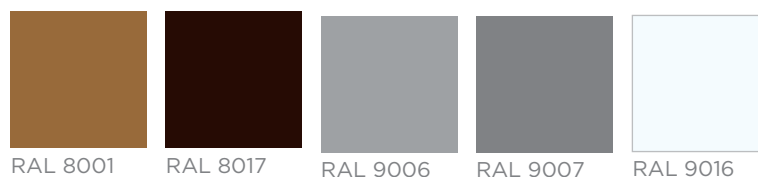
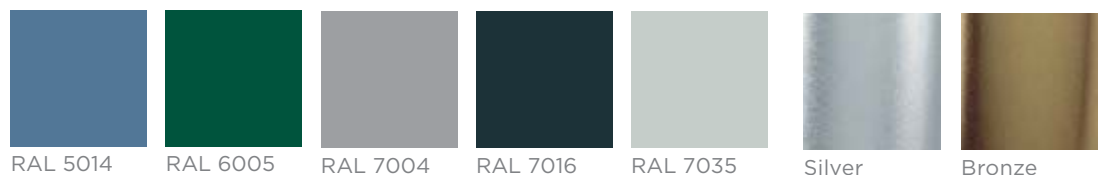


RAL colors

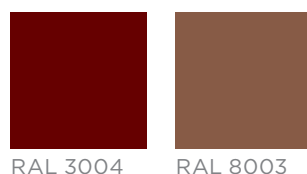
MIK ALU windows are also available in any other color from the RAL/NCS color chart.



### STANDARD COLORS



### NONSTANDARD COLORS

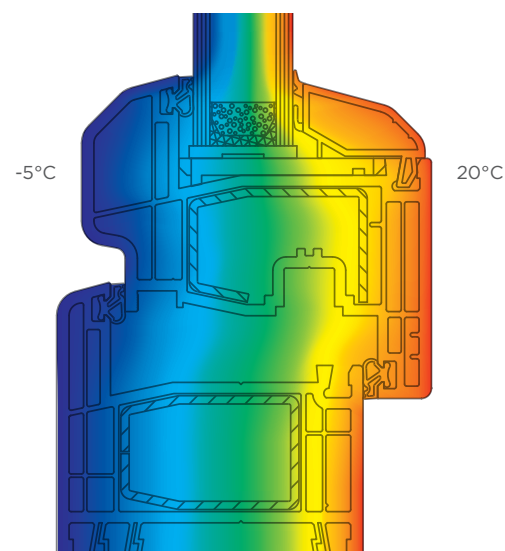


### ANODIZED

## The process of anodizing ALU windows

Anodizing is an electrochemical process used to increase the thickness of the oxide layer that protects the window's surface. By adding different alloys a selection of color shades can be achieved.

# Thermal insulation



## Glazing comparison

WINDOW TYPE	SYSTEM	Window frame thermal insulation		Uf	Glazing thermal insulation Ug											
		FRAME DEPTH	CASE-MENT DEPTH		1,1		1,0		0,7		0,6		0,5		0,4	
					ALU	PVC	ALU	PVC	ALU	PVC	ALU	PVC	ALU	PVC	ALU	PVC
PVC	Comfort Extra Line Statik3	83mm	83mm	1,1	1,2	1,2	1,2	1,1	1	0,9	0,93	0,84	0,87	0,77	0,8	0,7
	Comfort Line Statik3	83mm	93mm	1,1	1,2	1,2	1,2	1,1	1	0,9	0,93	0,84	0,87	0,77	0,8	0,7
	Royal Line Statik3	83mm	83mm	0,92	1,2	1,1	1,1	1	0,94	0,85	0,88	0,79	0,82	0,72	0,75	0,66
	Elegance Line Intenz + Statik3	83mm	83mm	0,89	1,2	1,1	1,1	/	0,93	0,84	0,87	0,78	0,81	0,71	0,74	0,65
	Kubus® Intenz + Statik3	83 mm	83 mm	1	/	/	/	/	0,97	0,88	0,91	0,82	0,84	0,75	0,78	0,69
WOOD	Comfort Line 70G	68mm	68mm	1,4	1,3	1,2	1,3	1,2	/	/	/	/	/	/	/	/
	Comfort Line 80M	78mm	78mm	1,3	1,3	1,2	1,2	1,1	1,1	0,92	0,98	0,85	/	/	/	/
	Comfort Line 90M	78mm	78mm	1,1	/	/	/	/	1	0,9	0,97	0,77	0,9	0,72	/	/
WOOD ALU	Elegance Line 70G	84mm	85mm	1,4	1,3	1,2	1,3	1,2	/	/	/	/	/	/	/	/
	Elegance Line 80 MIK2	95mm	96mm	1,2	/	/	/	/	1,1	0,88	1	0,81	0,93	0,74	/	/
	Comfort Line 90 MIK4	109mm	124mm	0,95	/	/	/	/	/	/	0,98	0,79	0,92	0,73	/	/
ALU	Comfort Line	67mm	77mm	2,17	1,6	1,5	1,5	1,4	1,3	1,2	1,2	1,1	1,2	1,1	1,1	1
	Elegance Line	70mm	80mm	1,7	1,5	1,4	1,4	1,4	1,2	1,1	1,2	1,1	1,1	1	1	0,96

Modern insulated glazing with edge sealing and insulated glass spacers

ALU spacer:  $\psi = 0,067W/mK$

PVC spacer:  $\psi = 0,035W/mK$

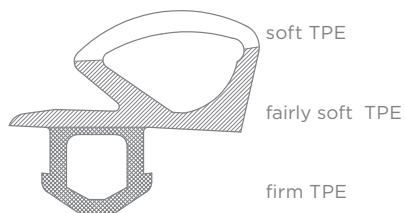
# Window accessories

## Window seals

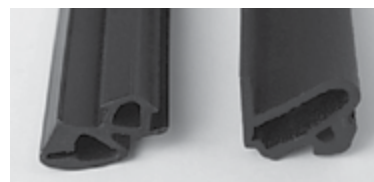
The main function of window seals is to make sure that the junction between the window frame and casement is air and water-tight when the window is closed to ensure good thermal and acoustic insulation. **MIK PVC windows have thermally embedded tubular seals which are also welded in the corners.** Thermal embedding prevents the seals from falling out of the window profile and their tubular shape makes them extremely elastic. This type of window seal returns back to its original shape after any alteration, guaranteeing a perfect window sealing each and every time. MIK window seals will not grow moldy due to the high quality material used for their production.

### ADVANTAGES

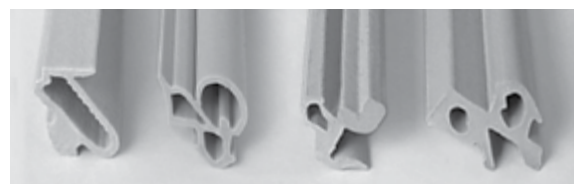
- Standard method welding possibilities
- UV and weather resistant
- Smooth surfaces for easy maintenance
- Compatible with other materials
- Environmentally friendly
- 100% recyclable



window seal cross-section, thermoplastic elastomers of a different firmness quality



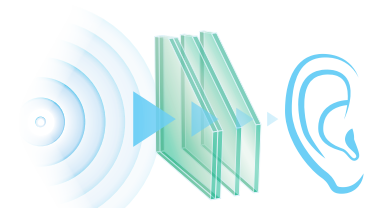
Black seals



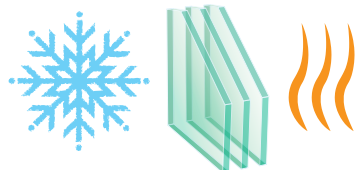
Grey seals

## Glass and glazing options

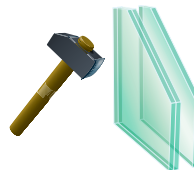
Appropriate window glazing is one of the main requirements for **effective acoustic and thermal insulation of a window** and can also shield you from the sun and the curious glances of your neighbors. Modern technology glass treatments have enabled us to produce **safety glass** that will protect you, not only from busybodies, but also from unwelcome burglars and unpredictable weather conditions. For the glazing of MIK windows and doors only top quality thermal and acoustic insulation glass is used.



Acoustic insulation glass



Thermal insulation glass



Safety glass



ALTDEUTSCH BRONZE



ALTDEUTSCH WHITE



ANTIQUÉ WHITE



CHINCHILLA WHITE



GOthic WHITE



CATHEDRAL WHITE



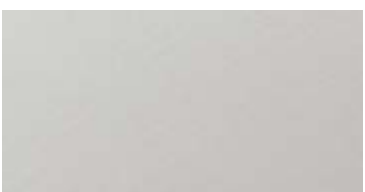
MASTER-CARRE WHITE



ROSA 504 WHITE



SILVIT WHITE



SATINATO WHITE



STOPSOL CLASSIC BRONZE/SCB



STOPSOL CLASSIC CLEAR/SCC



STOPSOL SUPER SILVER DARK BLUE-SSSDB

# Let's conserve energy. LET'S SAVE!

Adequate building renovation or the correct glazing of a new building can save you up to 70% of heating and cooling costs for your home.

Visit our website and find out how much money you can save

How to make your home energy efficient?

## SAVE HUNDREDS OF EUROS PER YEAR WITH MIK WINDOWS

Did you know: With MIK Windows, you can save several hundred Euros each year and tens of thousands in the long run.

High-quality components and outstanding thermal insulation of MIK windows will save you substantial amounts in on your heating bill and provide you with a high standard of energy- and cost-efficient living.

Below you can see a standard comparison of old wooden windows, average new windows and MIK windows.

### Example of Savings with MIK Windows

- Residential surface: **300 m<sup>2</sup>**
- Total surface of windows: **60 m<sup>2</sup>**
- Heating appliance utilisation rate: **75%**
- Price of heating oil: **0,95 €/litre**
- Annual price increase - inflation: **4%**



Savings	In comparison to old wooden windows	with MIK windows
annually in Euro	1.539	2.252
in 25 years in Euro	64.234	94.000

CONSUMPTIONS and COSTS	Consumption in average public facility in Slovenia	Old wooden windows	Average new windows	Consumption with MIK windows <sup>*3</sup>
Annual consumption of heating oil, litres/m <sup>2</sup>	16	11	5,6	3,1
Annual consumption of heating oil, in litres	4.800	3.300	1.680	930
Rate of loss attributable to windows 70% in litres <sup>m<sup>2</sup></sup>	3.360	2.310	1.176	651
Yearly heating cost in €	4.560	3.135	1.596	884
Heating costs over 25 years, in € <sup>*2</sup>	190.380	130.886	66.633	36.886

\*1: With adequate thermal insulation of the building.

\*2: Adjusted for 4% annual inflation.

\*3: We installed MIK windows at the Primus Hotel in Ptuj. Its energy performance certificate proves the hotel is now ranked Energy Performance Class A.

Do you wish to find out how much you could save?

Contact us and our experts will prepare a detailed calculation of your savings, specifically tailored to you and your flat, house or commercial premises.

Let us prove that buying MIK windows is the very best investment you could possibly make today.

Don't forget to request our quote for delivering and installing our products.

[en.mik-ce.si](http://en.mik-ce.si)  
**SAVE MONEY WITH MIK WINDOWS**



Vojniška gmajna, the most energy efficient high standard apartments in Slovenia!

# MIK's Energy Efficiency Center

In a properly glazed and insulated building, 50% of the energy is used for heating and cooling the building to a temperature suitable for a high quality and comfortable living environment and the other 50% of the energy is used for ventilation of the living area. Therefore, proper ventilation is equally as important as glazing and insulating the building since it considerably increases the energy and cost efficiency.



## Why the energy efficiency center?

Based on a conducted analysis of the building's condition, architectural specifics and position we will devise an efficient renovation plan to turn your building into an energy efficient home. We pay special attention to the restoration of the building's envelope and the solutions derived from MIK's many years of experience in the field of glazing. We also do all the calculations of energy and cost savings that are based on the given preposition of an energy efficient renovation.

A high quality living environment and physical well-being at home or at work depends on numerous factors. One of the most important is **ensuring a suitable temperature and quality of the air in the room**. In the past buildings always had plenty of fresh air. The method of construction and quality of materials enabled buildings to breathe. Heating costs did not yet present a problem. But the need for energy efficiency



and consequently the rising prices of energy increased the demand for improved insulation of buildings, energy conservation and minimization of buildings' heating and cooling costs. **New buildings are much more airtight due to the pressing demand for efficient energy use which leads to negative effects such as the retention of low quality air inside a room. Similarly, old buildings must undergo renovation that improves the building's insulation and provides the capacity for high quality ventilation without any major invasion into its architectural design.** So how to best begin the construction of a new building or the renovation an old one and simultaneously ensure a high quality and energy efficient living environment remains the essential question of every investor. **The experts at our energy efficiency center will provide you with professional help and solutions for the renovation or construction of an energy efficient and cozy home.**



**High quality renovation of a building** not only increases its life-span, it also improves the quality of the living environment and **saves you money with heating, cooling and ventilation costs.** Bad quality planning and inadequate reconstruction work could worsen the building's quality and

consequently make a comfortable living situation in such a building very difficult or close to impossible. Only good planning, well coordinated renovation phases and high quality execution is going to bring the desired result of an energy efficient building with a high quality living environment. Based on the conducted **analysis of the building**, which consists of **thermvision pictures, energy consumption analysis** and further analysis of all other factors that may affect its energy efficiency, we provide you with **efficient solutions for the renovation of old or construction of new buildings.** After the renovation you can **request an energy efficiency card** that will give you a factual data breakdown on the energy consumption of your home.

### Building condition analysis

- Analysis of energy consumption for heating, cooling and ventilation
- Analysis of electric energy consumption
- Analysis of heat loss through the building's envelope (foundations, roof, facade)
- Thermovision of windows, doors, and winter gardens

### Report on the building's status

Includes factual data on the building's heat loss and thermovision pictures.

We take thermovision pictures and prepare an analysis and report of your home's condition upon request. You can find more information on thermovision examinations and prices at [www.mik-ce.si](http://www.mik-ce.si)

[en.mik-ce.si](http://en.mik-ce.si)  
ENERGY EFFICIENCY CENTER

With the infrared thermography method we check:

- the condition of the insulation and flaws in construction
- flaws with window installation
- window and door sealing
- for the occurrence of moisture in the walls and pinpoint the reasons for increased humidity and mold development
- for the occurrence of thermal bridges
- flaws in roof's hydro-insulation
- the operational quality of cooling and heating devices (radiators, air conditioners)
- the condition of electrical boxes and electric circuits
- the installation flaws of under-floor heating systems and hot water plumbing

### The correct renovation procedure of a building

1. renovation of the roof
2. window and door replacement
3. ventilation
4. renovation of the façade
5. heating and cooling

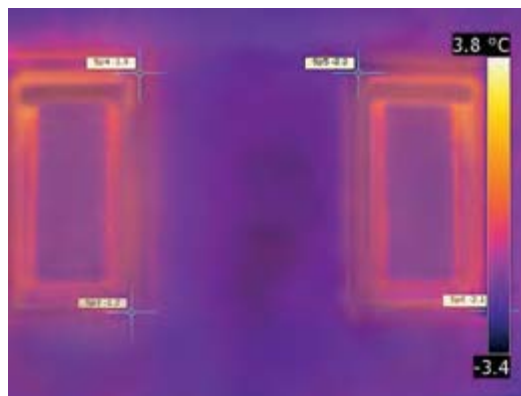


### Thermography pictures

provide quick and reliable information on the surface temperature of the object. The temperature differences are often a sign of impending failure. This method enables a high preventive measures and the correction of deficiencies in structure and in consequence the potential savings.



thermovision picture before renovation



thermovision picture after renovation

# Ventilation

## MIK SOLUTIONS



### Living areas can be ventilated in several ways:

- natural ventilation; by opening the windows (but losing a lot of heat)
- mechanical or forced ventilation; with a ventilation system that has an integrated heat exchanger thus providing energy efficient ventilation



Are you afraid you will have condensation problems after replacing your windows?

### Why do condensation problems occur?

Modern windows have become more and more airtight because of the pressing demand for energy efficiency. Although this minimizes heat loss, it retains bad quality air and humidity in a room.

**Modern, good quality windows** have **much better seals and thermal insulation** than older windows, which prevents air exchange through cracks and thus reduces the ventilation. In the past more air was exchanged with the outdoors because window sealing wasn't as good. To-

day ventilation is our own responsibility. **MIK PVC windows** offer you a solution that does away with the inconveniences caused by glass condensation. Your windows can come equipped with a basic window ventilation system **Gecco** that automatically regulates optimal air exchange in the room or with an innovative ventilation system **MIKrovent** that has an integrated heat recovery system and ensures efficient ventilation with minimal heat loss.



MIKrovent system is invisible from the outside and hidden behind the slate blinds panel.



With a 100% air exchange and up to 87% heat recovery, MIKrovent® presents the optimum solution for healthy, high quality and energy efficient ventilation of living areas while windows are kept closed.

# MIKrovent<sup>®</sup>

VENTILATION SYSTEM



Heat recovery up to **87%**  
at a 100% air exchange



The local ventilation system runs only when and where it is needed and can be individually adjusted to each and every room.

One of the most important components that significantly affects our quality of life, well-being and living conditions in a house or an apartment is high quality fresh air in rooms with closed windows.

## STANDARD COLOURS



RAL 9007



RAL 9006



RAL 9016

## MIKrovent<sup>®</sup> – innovative and economical

Occasional, uncontrolled ventilation of living areas by opening windows causes, in addition to an unhealthy draft, a significant loss of heat because fresh, outside air has to be reheated in the winter and re-cooled in the summer to a comfortable temperature. The local ventilation system MIKrovent<sup>®</sup>, with 87% heat recovery at a 100% air exchange, is the most innovative and energy efficient solution for local ventilation. MIKrovent<sup>®</sup> ventilation system replaces the need to ventilate living areas by opening windows.

## NONSTANDARD

MIKrovent aluminum housing is also available in all other colors from the RAL and NCS color charts.



MIKrovent system installed above the window.



Remote control, also with mobile devices.

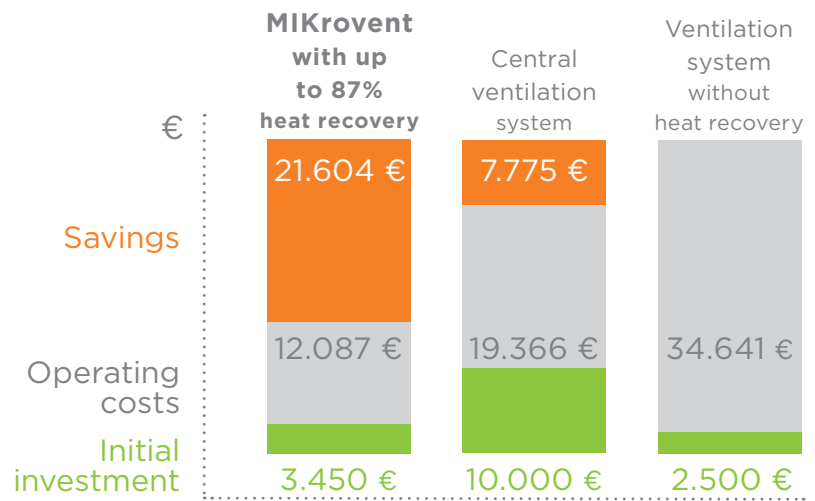
MIKrovent<sup>®</sup> ventilation system is a world-wide innovation patented in 52 countries around the world and was awarded the Silver Guild from Chamber of Crafts of Slovenia and the Gold Star from International Trade Fair in Celje, Slovenia.



## Advantages of MIKrovent® ventilation system

- enables healthy, high quality and economical **ventilation of rooms while windows are closed**
- provides **up to 68% savings** with purchase, installation, operating and maintenance costs in comparison to similar ventilation systems
- **4x lower initial investment costs** in comparison to a central ventilation system.
- does not require any additional shafts for air distribution so there is **no cleaning** or **extra electricity costs** for distributing air through shafts
- all the **characteristics of a closed window** (such as protection from burglary, sound and thermal insulation) **are retained**
- **prevents a draft**, the infiltration of dust and outdoor noise, the potential for mold or favorable living conditions for mites...
- it is **easy to use** and easily adjustable to your needs (automatic or manual control)
- it is **possible to connect MIKrovent to a central control system** or upgrade it with CO<sub>2</sub>/VOC and humidity sensors
- with the usage of high quality washable filters (F7, F8) for fresh air, it **makes life easier for allergy prone people** by preventing the entry of different insects and by cleaning the inlet air
- it **is a part of frame extension profile**, which makes it very inconspicuous
- **ideal for thermal renovation** of old buildings and more than suitable for new buildings as well
- can **fit to any window size**
- ensures that ventilation **is in accordance with the EU energy efficiency directive** of 1.3.2009
- **patented in 52 countries around the world** and awarded the Silver Guild from Chamber of Crafts of Slovenia and the Gold Star from International Trade Fair in Celje, Slovenia

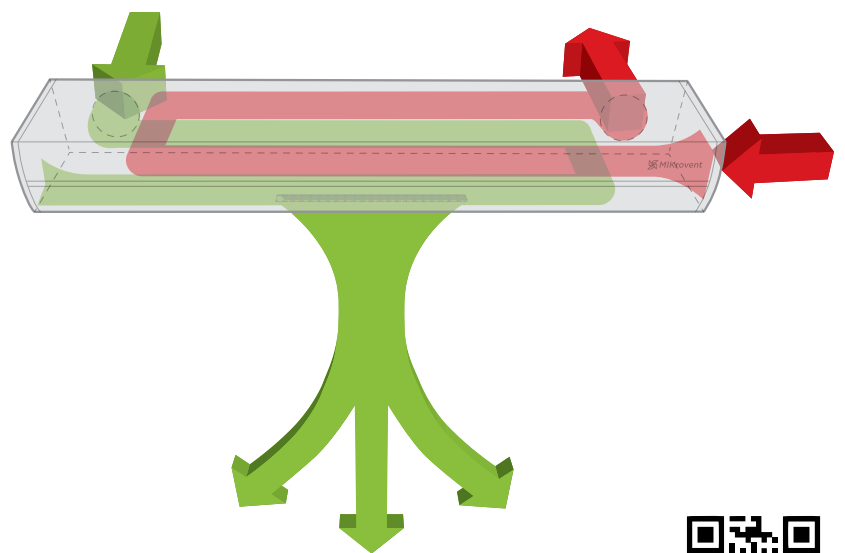
## Save 21.604 € in ventilation costs over 25 years for a 150m<sup>2</sup> house



MIKrovent's inlet and outlet of air for the room is similar to that of a window. This ensures the air is distributed around the room equally and guarantees pleasant well-being without a draft or noise.

MIKrovent® is a remote controlled ventilation system with 4 preset levels of intensity. Alternatively, it can be manually controlled and adjusted to the living habits of individuals.

The air supply and exhaust opening in MIKrovent® can be manually closed, sealing the building completely and preventing the negative effects of strong wind on tall buildings. MIKrovent® can come equipped with a CO<sub>2</sub>/VOC (volatile organic compounds) or humidity sensor, which automatically turns on or increases the intensity of ventilation of MIKrovent® every time that the concentration of humidity, CO<sub>2</sub> or VOC rises above or drops under a preset level. Thus MIKrovent® provides the option of automatic regulation of air quality within a room, as well as the option of manual activation or deactivation of the device.



References on mikrovent.si

MIKrovent® is a system for decentralized ventilation of new and existing buildings with heat recovery up to 87% at a 100% air exchange within the room and an optional humidity and/or CO<sub>2</sub> control in ventilated rooms.

MIKrovent specifications:

Ventilation system MIKrovent®	100	300
Air flow in m <sup>3</sup> /h	10-30	40-120
AC/DC voltage in V	230/12 & 110/12	230/12 & 110/12
Required power in W	4-21	25-45
Heat recovery (η <sub>l</sub> ) up to in %	71-87	70-89
Room sound level with 8db noise reduction*	25-35	26-35

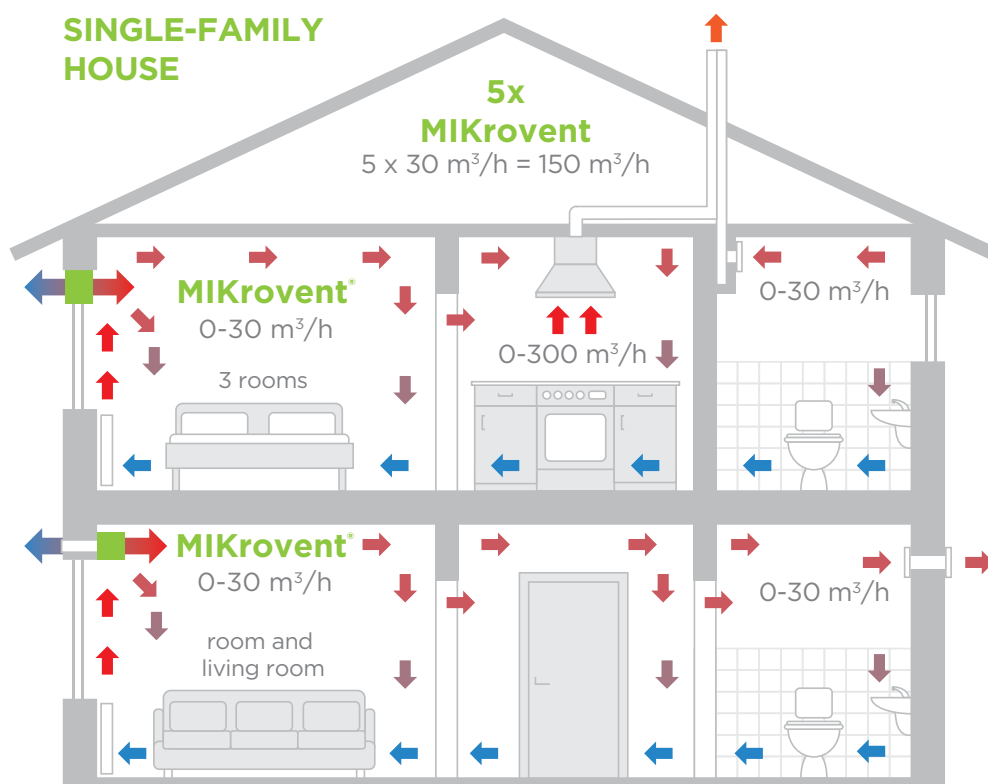
\*depends on the results of preliminary measurements. Data is based on measurements in higher temperature conditions (t<sub>1</sub>=40°C, flow=24°C). The data is gathered at the input source and includes transformer and control. We reserve the right to alter technical specifications at any time.



MIKrovent® is suitable for installation in old as well as new buildings. It is easy to use and maintain.

Because of its compact design and outstanding heat recovery, MIKrovent is suitable for **houses** as well as **hospitals, retirement homes, hotel rooms** and, of course, **offices**. It can be fitted into any room with a window. MIKrovent ventilation system can be easily installed to most MIK window systems. No air supply and exhaust ducts or grilles are needed for its operation. **It is simple to use and maintain.** Using its automatic control system it balances the humidity, cleans the air and lowers the CO<sub>2</sub> concentration.

*MIKrovent® is easy to install and is therefore suitable for all buildings, new and old. It can be installed onto a window frame on any side of the window or it can be attached onto roller shutters.*



MIKrovent®

25m<sup>2</sup>

1 MIKrovent unit is suitable for ventilation of rooms up to 25m<sup>2</sup>



MIKrovent® 300

60m<sup>2</sup>

1 MIKrovent 300 unit is suitable for ventilation of rooms up to 60m<sup>2</sup>



# GECCO

## VENTILATION SYSTEM

Gecco ventilation system is available in 3 versions with various installation options and air exchange control.

### ADVANTAGES

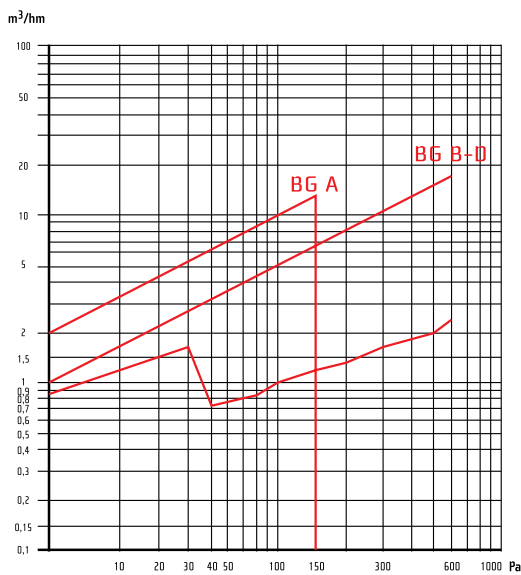
- works on air pressure difference and ensures up to 85% heat recovery
- secure ventilation even when you are not at home
- high acoustic protection
- high thermal protection
- possible subsequent installation or removal
- without visible holes or slits from the interior
- cost-effective solution

### Gecco 3 ventilation system

The Gecco 3 ventilation system is installed to an interior upper edge of a window casement and can be installed subsequently. **It can be closed manually but also closes automatically when the wind gust or the air pressure difference between the interior and exterior reaches 30 Pa (pascals).** Available for PVC Comfort or PVC Comfort Extra Line window systems.

### Gecco 4 ventilation system

The Gecco 4 ventilation system enables air exchange up to 5m<sup>3</sup>/h. It is integrated into the window frame extension profile and cannot be installed subsequently. **It can be closed manually but also closes automatically when the wind gust or the air pressure difference between the interior and exterior reaches 20 Pa (pascals).** Available for all MIK PVC window systems.

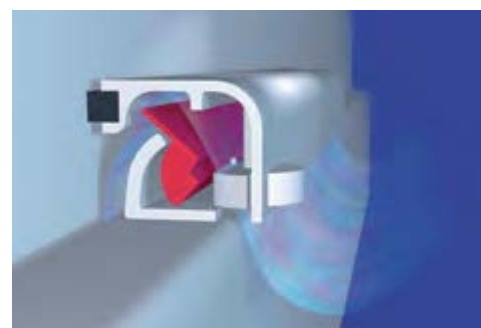


Ventilation system	Air flow in m <sup>3</sup> /h with air pressure difference					
	2 Pa	4 Pa	5 Pa	7 Pa	8 Pa	10 Pa
Gecco 3	2,6*	3,7*	4,2*	4,9*	5,2*	5,8
Gecco 4	4,2	6,1	7,1*	8,5*	9,2	10,5

\* calculated values



closed flap



open flap



GECCO 3

Why install Gecco ventilation system on your windows?

How many Gecco ventilation units do you need for your home?

The air exchange provided by Gecco ventilation system (2-5m<sup>3</sup>/h) does not meet the newest standards for high quality ventilation. Nevertheless, it is still suitable for minimal ventilation and the elimination of condensation problems.

**One Gecco ventilation unit** suffices for optimal ventilation of approximately 10m<sup>2</sup> of ground area. For the ventilation of larger area we recommend the installation of several Gecco units.

# Security and protection

The use of high quality materials, precise production without any possibility for quality deviation, and high quality security fittings (mushroom system) ensure that MIK windows, already encompassing basic security equipment, provide top notch protection from damages and burglary.

When glazing larger openings in easily accessible and not as well protected places, we recommend that increased security class fittings and safety glass be integrated in your windows. MIK window systems can be upgraded for better protection from damages and burglary to the safest RC2 security class.



## The correct arrangement of security class windows for optimal protection



RC Resistance class = WK Widerstandsklasse

## DIFFERENT WINDOW SECURITY LEVELS

● The number of striker plates depends on the window size

Basic **BAS**



Resistance class 1 **RC 1**



Resistance class 2 **RC 2**



# Fittings



## Winkhaus activPilot

Mik windows are normally equipped with security fittings Winkhaus activPilot. The tilt and turn system of activPilot fittings enables a completely new and simple way of closing the window that ensures even better protection and sealing capability as well as a longer life-span.

Winkhaus activPilot security fittings **have striker plates and mushroom cams all around the window casement and frame**

**preventing forceful opening of the window.** Cams are shaped in a mushroom which enables them to fit perfectly into a striker plate on the frame and improve the security of a closed window. **Mushroom cams can be easily adjusted** without using any tools so that each window **can be set to the desired level of sealing** (up to +/- 0,8mm), thus controlling the exchange of fresh air.



flexibility - one of the key advantages of activPilot fittings that enables numerous adjustments and settings



multifunctional component that locks the handle into position when the window is open, functions as a spring catch to keep the doors closed when the handle is not locked and supports the window casement weight



security closing system "mushroom cams"



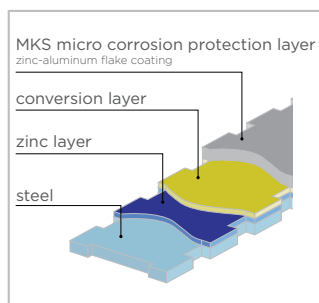
open window control (heating, cooling, burglary)



multilevel tilt system



MACO TRICOAT surface coating



MACO TRICOAT multilayer coating



basic striker plate



security striker plate



tilt striker plate

## MACO TRICOAT surface coating

PVC Royal Line window system is equipped with special **MACO TRICOAT** window fittings that have additional surface coating. MACO TRICOAT fittings boast not only a superb security level and seal but also **an extremely resistant TRICOAT coating** that makes the fittings especially suitable for the glazing of buildings in very humid areas or areas exposed to aggressive weather and

environmental conditions such as **the coastal region within 1000m from the sea** (an area often subject to corrosion from salt, chlorine, ammonia and other harmful substances). The tests have shown that MACO TRICOAT fittings are up to **3x more resistant** (tested for 1000 hours in salt water) **to aggressive weather and environmental conditions** than other similar fittings.

## SECUSTIC security handle

The surveys show that **1/3 of break-ins to houses or apartments happen through windows.** Usually the burglars try to crack open the window and **forcefully turn the handle from the outside.** **Secustic security handle** has an integrated blocking mechanism with special security bolts that pre-

vent any attempt to turn the handle from the outside and therefore prevent the opening of the window with force. When turning the handle the clicking noise alerts you that the handle is in a locked position (patented system). **All MIK windows come equipped with the Secustic security handle.**



# Blinds, shades and shutters

MIK window blinds, shades and shutters protect your home from the sun, noise, curious glances and even burglars. **With appropriate choice and usage of window shading systems you can save up to 80% of energy normally used for the cooling of living areas.** High quality **exterior shading systems** prevent the overheating of the outer window glazing thus significantly reducing the heat transfer into the room. We recommend those shading systems for the part

of the building that is directly exposed to the sunlight or for shading large glazed areas. **Interior shading systems are less effective against overheating.** That's why we recommend them only to shade the area where only adjustment over the light in the room is needed. A wide selection of interior as well as exterior shading systems provides you with the abundance of materials, shapes and colors to completely satisfy any taste or style.

Shading systems	Interior	Exterior	Operated
Blinds	✓	✓	Manually
Roller shutters	✗	✓	Manually, electrically, remotely
Shutters	✗	✓	Manually
Roller blinds	✓	✓	Manually, electrically
Vertical blinds	✓	✗	Manually, electrically
Brise soleil	✗	✓	Fixed, electrically

## Interior shading systems



Venetian blinds



pleated blinds



interior roller blinds

## Exterior shading systems



External blinds – above plaster system



External blinds – under plaster system



external blinds – under plaster system



cross-section of the built-in roller shutter



built-on roller shutter – under plaster system



built-on roller shutter with a RONDO box



built-on roller shutter



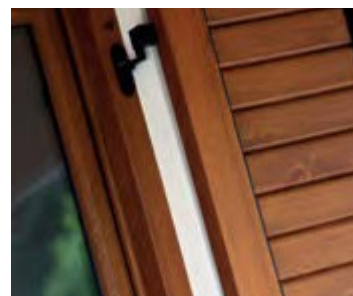
exterior roller blinds



insect screen



brise soleil

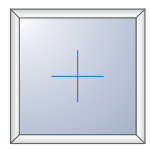


PVC shutters

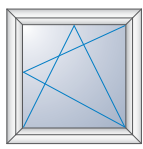


ALU shutters

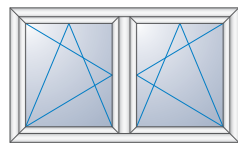
## Window types



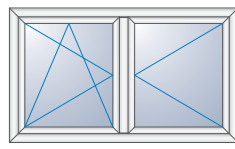
fixed window



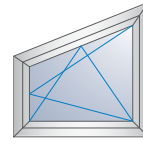
single casement window



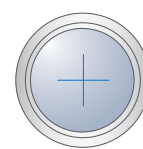
double casement window with a mullion



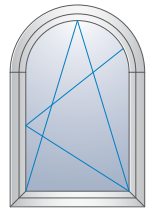
double casement window without a mullion



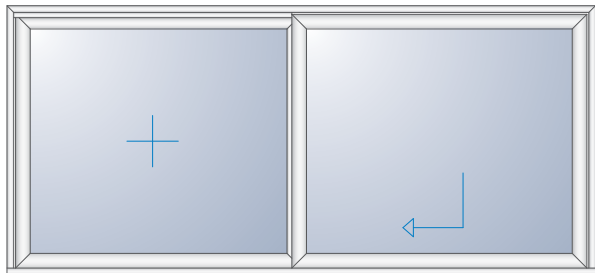
irregular shaped window



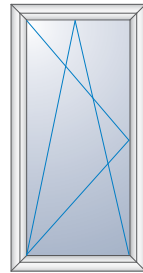
round window



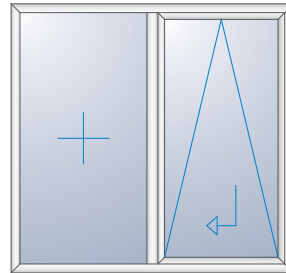
arched window



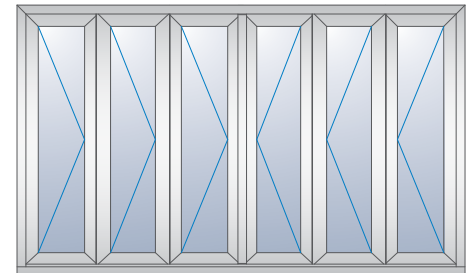
panoramic door



balcony door



sliding door



folding or harmonica door

## Handles

All MIK windows come equipped with Secustic security handle.



White RAL 9016



Silver F1



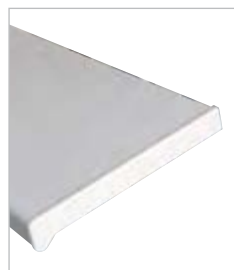
Bronze F4



Metallic silver F9

## Window sills

### INTERIOR SILLS



PVC



NATURAL STONE



NATURAL STONE



ARTIFICIAL STONE



ARTIFICIAL STONE



HPL LAMINATE

### EXTERIOR SILLS



ALU



ARTIFICIAL STONE



ARTIFICIAL STONE



GRANITE



MARBLE

# Doors

Front doors establish the first connection between your home and a visitor. Top quality front doors are resistant to all weather conditions and damages. At the same time they provide acoustic and thermal insulation and protect your home from burglars. It is also very important for your doors to match with your home's exterior appearance in color and style.

**Which doors to choose?** The broad scope of materials, shapes and technical specifications of MIK doors will offer a solution for any home. Every material has its own characteristics that will fulfill your desires and satisfy the demands of the room. Match your doors with your windows and choose the material that suits your house best and will prove most effective in any kind of weather.



We offer high quality:



PVC  
front doors



ALU  
front doors



Wooden  
front doors

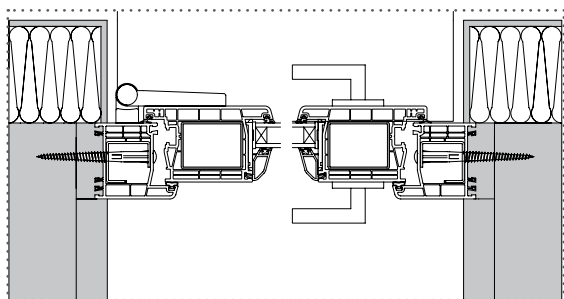
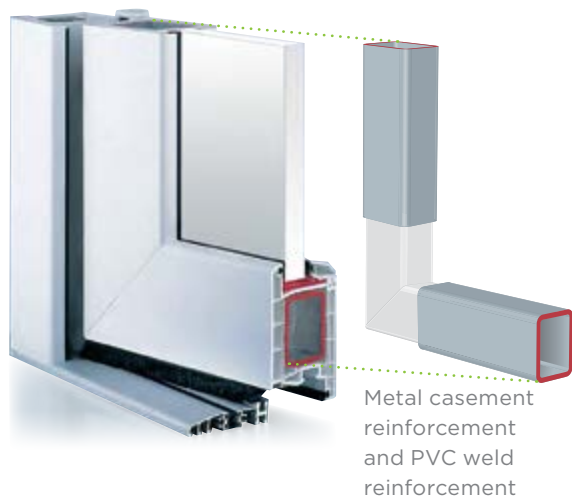


Garage and  
fire doors



Wooden  
interior doors

# PVC FRONT DOORS



## Advantages

- **RIGIDITY AND STIFFNESS;** MIK PVC front doors have reinforced casement cores with thick metal stiffeners and PVC weld reinforcement that strengthens the corner welds and ensures improved rigidity and stiffness.
- **OUTSTANDING THERMAL AND ACOUSTIC INSULATION;** All MIK PVC front doors have double sealing and come equipped with a door bottom sweep that additionally improves the air- and water-tightness.
- **HIGH LEVEL OF SECURITY AND PROTECTION;** MIK PVC front doors are equipped with high quality fittings with 5-point locking or an upgraded hook locking system, security cylinder lock and protective cylinder rosette.
- **BEAUTIFUL AND LASTING COLORS;** In addition to our most popular white color, we offer a wide selection of shiny and extremely resistant acrylic glass colors and wood decors.
- **A BROAD SCOPE OF DOOR ACCESSORIES AND PANELS**

MIK PVC front doors match our window systems and are available in 4 different collections. Each collection has its own frame and casement specifications while the choice of door glazing (door panels, glass, glazing bars...) is left up to you.

## Standard Line



## Architect line



## Comfort Line



## Comfort Line

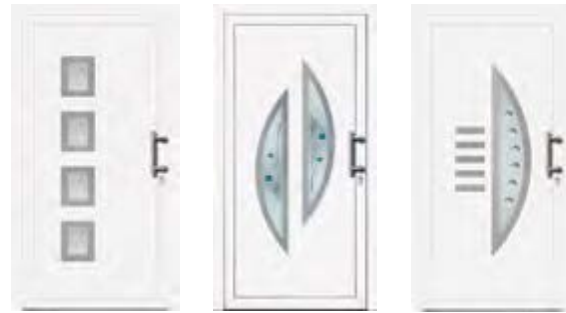


MIK CR

MIK CR WHITE

MIK SLAVONIJA

## Elegance Line



MIK VR SAR

MIK KUPA

MIK PSUNJ



MIK IT

MIK LONDON

MIK FR

ALU  
FRONT DOORS

Our selection of ALU front doors encompasses **5 collections**. Each collection has its own frame and casement specifications while the choice of the door panel is entirely up to you.

## Standard Line



MIK PREZZO 01

MIK PREZZO  
03MIK PREZZO  
04

## Elegance Line



MIK SIENE

MIK HAMBURG

## Comfort Line



MIK LOIRE

MIK SARAJEVO



## Comfort Plus Line

## Elegance Plus Line

## Advantages

- **RIGIDITY AND STIFFNESS;** The high quality of MIK ALU front doors is guaranteed thanks to the top notch ALU profiles from well-known manufacturers SCHÜCO and ALUK.
- **OUTSTANDING THERMAL AND ACOUSTIC INSULATION;** All MIK ALU front doors have double sealing and come equipped with a door bottom sweep that additionally improves the air- and water-tightness.
- **HIGH LEVEL OF SECURITY AND PROTECTION;** MIK ALU front doors are equipped with high quality fittings with a 3-point locking system, security cylinder lock and protective cylinder rosette.
- **APPEALING AND SHINY RAL COLORS;** A special coloring process called powder coating ensures that your MIK ALU front doors will not only look dazzling but will maintain that shine for many years to come.
- **WARRANTY;** We grant a 5-year warranty for all MIK ALU windows and doors.

## WOOD-ALU FRONT DOORS

### Advantages

- **WOOD AND ALUMINUM COMBINATION** ensures all the advantages of wood with addition of aluminum durability
- **OUTSTANDING THERMAL AND ACOUSTIC INSULATION;** Thick and highly insulated door panels and profiles ensure incredible thermal and acoustic insulation of MIK wood/ALU front doors.
- **HIGH LEVEL OF SECURITY AND PROTECTION;** MIK wood/ALU front doors are equipped with high quality fittings with a 3-point locking system, security cylinder lock and protective cylinder rosette.
- **A WIDE SELECTION OF ENVIRONMENTALLY-FRIENDLY AND LASTING COLORS;** The wood interior of your MIK wood/ALU front doors is protected with thick environmentally-friendly color coatings produced on a water base. The aluminum exterior is available in a wide selection of colors from RAL color chart.



wood/ALU D 767-G front door

## WOODEN FRONT DOORS

### Advantages

- **RIGIDITY AND STIFFNESS** is ensured by using only the best quality wood in production. The door-frame is made from 3 layers of glued wood while the door panels are made from plywood with aluminum reinforcement and a core filled with foam. The aluminum reinforcement prevents the contraction and expansion of wood thus ensuring its long life-span.
- **OUTSTANDING THERMAL AND ACOUSTIC INSULATION;** The panels with foam filled cores improve the thermal and acoustic insulation of MIK wooden doors.
- **HIGH LEVEL OF SECURITY AND PROTECTION;** MIK wooden front doors are equipped with high quality fittings with a 3-point locking system, security cylinder lock and protective cylinder rosette.
- **A WIDE SELECTION OF ENVIRONMENTALLY FRIENDLY COLORS;** MIK wooden front doors are protected with thick environmentally-friendly color coatings produced on water base.



wood front door P 130

# GARAGE AND FIRE DOORS

MIK garage doors ensure your home's safety and provide good thermal and acoustic insulation. They are very easy to use and control. The diverse color and shape options in which MIK garage doors are available allow you to adjust them to the exterior appearance of your home.

We offer a variation of garage door types:



Canopy garage doors



Sectional garage doors



Roller garage doors

**FIRE DOORS** or **FIREPROOF DOORS** are intended for the protection of certain areas from fire hazards. They prevent fire, smoke and heat from spreading across the building. Depending on the material from which fire doors are made and the thickness of the door panel, these doors will provide varying levels of fire resistance.

## SELECTION OF FIRE DOORS:

- Steel fire doors
- ALU fire doors
- Wooden fire doors

## FIRE RESISTANCE LEVELS:

**EI30** – Fire doors IE 30 prevent the passage of smoke, fire and heat through the doors for at least 30 minutes if fire temperature in correlation to time rises according to the standard time/temperature curve.

**EI60** – Fire doors IE 60 prevent the passage of smoke, fire and heat through the doors for at least 60 minutes if fire temperature in correlation to time rises according to the standard time/temperature curve.

**EI90** – Fire doors IE 90 prevent the passage of smoke, fire and heat through the doors for at least 90 minutes if fire temperature in correlation to time rises according to the standard time/temperature curve.

MIK fire doors are available in 3 different materials and 3 fire resistance levels.



ALU fire doors



cross-section of ALU fire doors

## INTERIOR WOODEN DOORS

### Advantages



wooden interior doors

- **ATTRACTIVENESS AND MODERN DESIGN;** Door 2000 interior door collection offers attractive, simple, and daring solutions. You can choose between different color coatings as well as high gloss colors or maybe you want to try leather upholstery.
- **DURABILITY AND LONGEVITY;** The outer layer of a Door 2000 interior door is made from compact HPL laminate which is very resistant to scratches, easy to clean, very durable, water resistant and insensitive to light.
- **PRACTICAL AND FLEXIBLE TO YOUR DESIRES AND NEEDS;** Door 2000 interior doors have semi-concealed reversible hinges that enable you to easily switch their direction of opening even right before the installation. Different types are available, including hinged, sliding and folding doors.
- **WITH ROTO SLIDING DOORS YOU CAN GAIN 1M2 OF ADDITIONAL SPACE;** ROTO sliding doors slide horizontally due to their central pivot system. When fully opened, the casement leans towards the frame and therefore uses very little space.



sliding interior doors



ROTO sliding doors

# Door accessories

## Handles

### Front door handles



ATLANTA HANDLE/ KNOB (MIK2)



ATLANTA HANDLE/ HANDLE (MIK1)

### Interior door handles



Genova



Monte Carlo



Bruxelles



Las Vegas



Phoenix



Capri



Acapulco



## Other accessories



Door knocker lion 2310 m1



door knocker ring 2330



door knocker old-fashioned 2320 m1



door holder



peephole



door closer



door closer

## Security accessories



Electric lock



security cylinder and colored key variants



transfer of the signal cable from frame to casement



biometric electronic locks with fingerprint readers



standard cams for front doors



security fittings for front doors (hook, cylinder lock, handle, pull handle)

# Consulting, measuring, installing and servicing

Our key advantages that set us apart us from our competition in Slovenia as well as abroad include products improved to perfection, our own sales network and the personal approach we take towards our clients. We offer a broad collection of services and comprehensive high quality solutions to our clients' problems that will improve their quality of life whether at home or at their office building.



## Consulting

We are fully aware that the mission and **the success of our company in the long term depend solely on ourselves, our knowledge and the relationships that we establish with our customers and, of course, our business partners.** Long-term strategic business connections enable us to **provide** our custom-

ers **the best products and services and ensure that we also fulfill the following promise.** With careful selection of our personnel and regular training we make certain that **our consultants are the true experts in the fields of glazing and energy efficient renovation or construction of new buildings.**

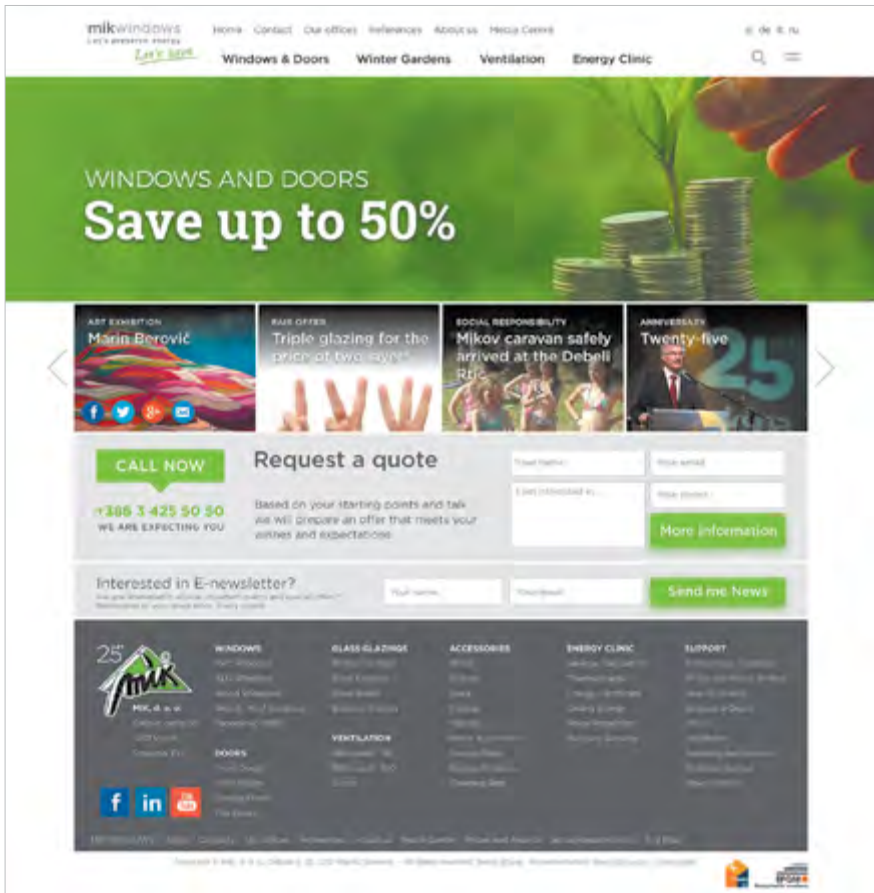
## Large sales network

In our aspiration to be not only excellent but also flexible, always anticipating our customer's desires and available whenever our customer needs us, we have spread our sales network all across Slovenia. Our expert colleagues are available to you in **9 MIK owned showrooms** in Ljubljana, Maribor, Celje, Vojnik, Murska Sobota,

Novo mesto, Kranj, Nova Gorica and Izola and with **1 authorized dealer** that all follow the principals and vision of the parent company. Cooperative attitude and continuous support to all our customers is the essence of our company, with which **we try to provide our customers with the highest quality services and solutions.**



More info on where to find our showrooms and authorized dealers on the back cover



MIK's webpage

## Reach us from your armchair anytime!

In our desire to be even closer to you, we have taken the advantage of the rapid development and popularity of interactive online media and created our own **updated webpage** [www.mik-ce.si](http://www.mik-ce.si). There you can find up-to-date information about our products and services as well as current news and information about all our special deals. For a convenient

visual perception of what we have to offer, you can also visit **MIK virtual showroom** and take a virtual walk through the displayed products. To stay updated on what is happening in our company regarding our latest products and to get advice you can follow us at our **MIK Celje Facebook page**.



## Measurements

**Our specialized measurement experts** find our customers **the best and most technically suitable solutions for even the tiniest details involved in glazing the building** regardless of its architectural design. They provide the **accurate measurements** and technical details to make an invoice and start the production of the requested products. **Our goal is to give our customers the solu-**

**tions that will provide them with high quality living environments in energy efficient and healthy buildings. Excellent logistics** of the entire work process, from measurement to production, **ensures a fast and accurate flow of information** between different departments, guaranteeing our customers **the quick response** of individual services and **a short delivery period**.

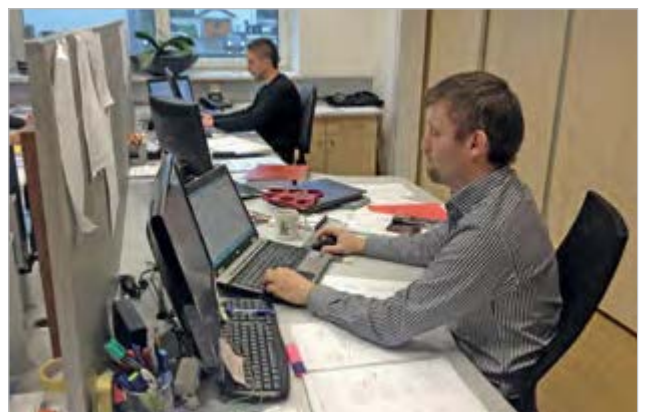
We hope that we have made it easier for you to reach us and find the right information through our online content and we wish you a pleasant experience with MIK. If you have any additional questions, we welcome you to approach our experts in our showrooms or at our authorized dealerships, who will be more than happy to provide you with any additional information.



Pay us a visit at the "Moj dom" fair in Ljubljana or MOS fair in Celje



Virtual showroom



Technology department



Service vehicle

[en.mik-ce.si](http://en.mik-ce.si)  Like it

# Production and storage



Computer-guided production line



storage room for profiles



cutting center



processing center



welding center



cleaning center



equipment of windows with fittings



glazing bead cutting process



storage room for finished products

The production process begins in the technology department. There our experts prepare the order for production based on the measurements and details obtained by our measurement expert. **The whole process from receiving an order, doing the measurements, preparing technical details all the way to production is highly supervised and completed electronically.** This enables us **immediate elimination of possible human error** and, of course, **ensures a short de-**

**livery period.** The production line is equipped with **computer controlled and guided energy efficient machines** that are optimized so that the consumption of material as well as energy is lowered to a minimum.

**The entire production process of MIK PVC and ALU windows and doors is controlled through an EAN barcode.** Therefore, every weld and every product, no matter whether it is the 1st or the

10000th, is produced identically and with the same accuracy. Using the EAN barcode, any individual product can be tracked throughout the various phases of production. Throughout our production process **we use only environmental-friendly materials** (such as water-based colors...). **All the waste material is collected separately and then recycled.**

**All the finished products as well as the materials are**

**stored in indoor storage areas.** Our own computer based **system of supply and storage and accurate logistics** of supply and dispatch enable quick and simple daily material reception and dispatch of finished products thus **decreasing the possibility of damages on finished products and ensuring on time installation.**

# Window installation

Entrust the installation of your windows to experienced MIK professionals who will do their job with flying colors in compliance with the technical standards. You will be guaranteed the flawless and long-lasting operation of your windows and a 10-year system warranty.

**The quality installation of windows, whether wooden, PVC, or aluminum, is of crucial importance.** Regardless of whether you are replacing old windows or installing new ones, **the connection between the frame and the wall must be well sealed** in order to maintain the thermal and acoustic insulation provided by the windows.

**The installation is carried out by accredited, highly experienced and licensed MIK installers, who must follow strict internal standards and regulations. With regular training and developments in our materials and installation processes,**

## How do you know if your windows have been installed properly?

**Windows and doors are properly installed** when the installation ensures energy efficiency, long-lasting usage and is done in compliance with all the technical standards and regulations. **The connection between the window and the wall has to be sealed correctly** without any visible openings or damages to the window frame to ensure good thermal

**we ensure our customers comprehensive solutions for the glazing of buildings regardless of their architectural specifics.** The final **phase of the glazing is internal installation control** carried out by our installation supervisor. The installation supervisor is solely responsible for making changes to the installation process and dealing with complaints. In the case of a very technically difficult glazing, upon request we will **check** the quality of the installation **with a thermovision camera** that shows any possible flaws in the installation process based on the information of the building's surface temperature.

and acoustic insulation. **The window has to be fixed to the wall in such a manner that there is no damage done to the window frame or casement,** that the window casement doesn't get stuck or sag and that it opens and closes without any problem. **Window handles must be firmly fixed.**

## Types of window installation

**The chosen window must be correctly and properly installed.** In addition to **classic installation,** at MIK we offer improved **ECO installation** or energy efficient **MIK RAL installation.** **MIK experts in this field** will help you to choose the most suitable type for your building, since the selection depends on the material that your windows are made from as well as the building that you want to glaze. **The improved quality of the instal-**

**lation is guaranteed with computer-guided predrilled holes for fastening the window into the wall,** ensuring compliance with the RAL directives and requirements for accurate and consistent fastening. **MIK PVC windows are fixed with special screws that go through metal reinforcements in the window frame** to ensure extra stability since the window weight is distributed between the window profile and the metal reinforcement.





## Classic installation

Classic installation of windows and door is the most common type of installation in Slovenia. The window frame is fixed into

the wall with screws and the connection between the window and the wall is filled with polyurethane foam.



## ECO installation

Eco installation is an **environmentally-friendly and cost-efficient installation of windows and doors. Patented permanently elastic open-cell foam made on a water base is used as sealing material** between the wall and the window. The foam has a **special ability to expand and contract**, which **enables it to fit the window per-**

**fectly regardless of the temperature and weather conditions, improving the thermal insulation of a installed window.** Eco installation is especially advised with the renovation of older houses. Eco installation protects the environment and makes your home more energy efficient.

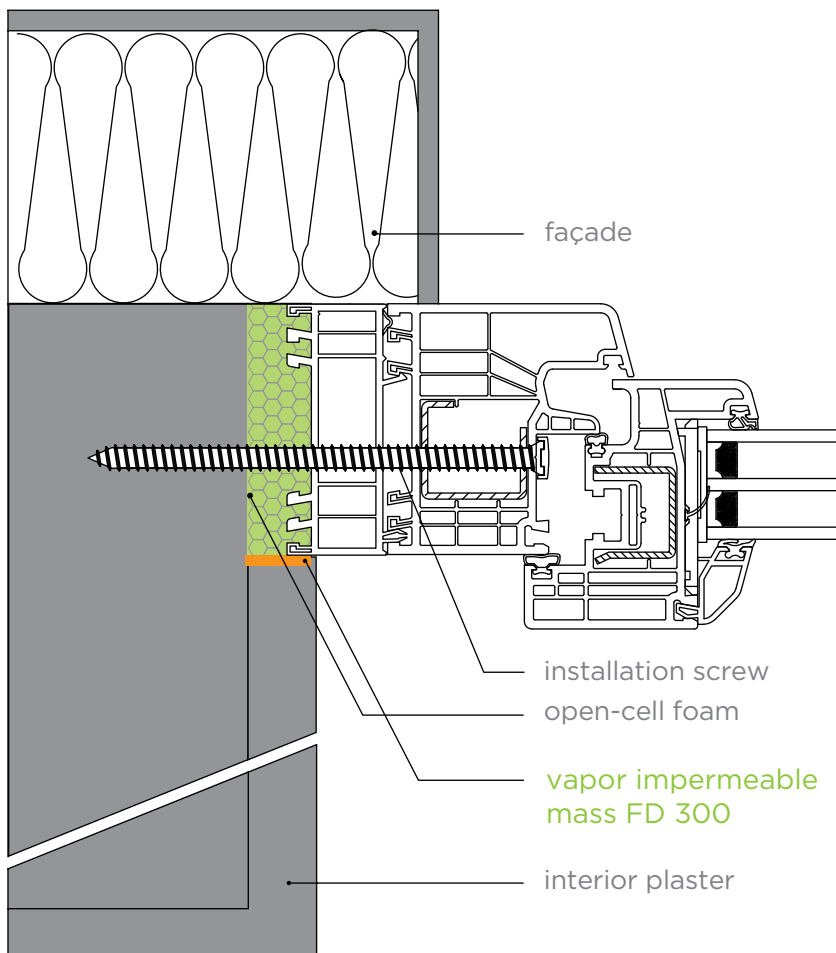


## MIK RAL installation

MIK RAL installation **is an energy efficient installation that reduces heat loss** due to its specific structure. MIK RAL installation prevents the infiltration of water into walls and thus the occurrence of condensation that can damage the insulation capability of the windows.

**Vapor impermeable mass FD 300** is used as a sealing material during RAL installation on the junction between the inner part of the wall and the window. **The water-based permanently elastic open-cell foam** fills up

the space between the frame and the wall, functioning as an excellent thermal insulator. In this manner, **the connection between the window and the wall becomes vapor impermeable from the inside and waterproof from the outside**, which enables the vapor to escape from the room into the environment but not vice-versa. Both of the specific materials used for MIK RAL installation are made from environmentally-friendly raw materials, and are used exclusively by MIK.



### Why do we recommend RAL installation?

As experts in the field of energy efficient renovations, we recommend our RAL installation, which is in compliance with the existing regulations on the thermal insulation of buildings and will become mandatory in Slovenia within the next few years.

### Advantages of MIK RAL installation

1. air-tightness up to 600 Pa
2. water-tightness up to 600 Pa
3. 31% elasticity in the connection
4. thermal insulation: 0,04W/m<sup>2</sup>K
5. acoustic insulation up to 63dB
6. vapor impermeability
7. elasticity in all directions
8. environmentally-friendly material

# Service and warranty

## Service

**Regular service of windows and doors is necessary in order to retain their basic functionality.** The biggest mistake you can make as a responsible property owner is to leave your windows and doors to their own resources without any maintenance, regardless of the material they are made from.

Here at MIK we provide **professional service and regular check-ups** that are carried out by our authorized maintenance personnel. **Professional, regular check-ups and service ensure** the long-lasting and flawless operation of your windows and doors and result in **savings on your heating and cooling costs.**

## Warranty

**The high quality and long-term operation of MIK windows and doors is ensured with exquisite, top notch materials, state-of-the-art and accurate production, and professional installation.** The assurance of high quality is only strengthened by the long-term warranties that we provide for our windows and doors.

servatories, the ALU roller shutter, interior PVC sills and exterior ALU sills.



### 30 YEARS WARRANTY

A 30-year warranty is guaranteed for flawless operation and retention of MIK windows and doors' basic functionality, provided that they are undamaged and have been regularly maintained and serviced by our authorized maintenance personnel.

### 3 YEARS WARRANTY

A 3-year warranty is guaranteed for the resistance of windows and doors to atmospheric influences, mandatory firmness of products and permanence of dimensions according to standards. It applies to laminated PVC profiles for windows, doors and shutters, laminated PVC door panels, wood/ALU profiles for windows and doors and the classic installation of windows and doors.

### 20 YEARS WARRANTY

A 20-year warranty is guaranteed for the resistance of PVC windows and doors to atmospheric influences, the mandatory firmness of the products and the permanence of dimensions according to standards. It applies to certain PVC window and door systems with acrylic glass coating.

### 2 YEARS WARRANTY

A 2-year warranty is guaranteed for the resistance of wooden windows and doors to atmospheric influences, mandatory firmness of products and permanence of dimensions according to standards. It applies to wooden profiles for windows and doors in Comfort Line. A 2-year warranty is also guaranteed for interior wooden and PVC doors, window shutter fittings, interior and exterior blinds, the opening/closing mechanism for blinds, shades, and shutters, PVC lamellas in roller shutters and garage doors, electronics and electrical devices integrated in conservatories as well as for the sagging of windows and doors.

### 10 YEARS WARRANTY

A 10-year warranty is guaranteed for all integrated door and window fittings, the resistance of PVC windows and doors to atmospheric influences, mandatory firmness of products and permanence of dimensions according to standards. It applies to PVC profiles for windows, doors and shutters in the white color, all section and other garage doors available in our sales offer, and all white door panels. A 10-year warranty is also guaranteed for our MIK RAL installation of windows and doors.

### 1 YEAR WARRANTY

A 1-year warranty is guaranteed for all the finishing work, such as sealing with silicone sealants, finishing up with covers or plasterboards, puttying etc. and any additional construction work needed for the installation of windows and doors.

### 5 YEARS WARRANTY

A 5-year warranty is guaranteed for integrated double or triple glazing, resistance of ALU windows and doors to atmospheric influences, mandatory firmness of products and permanence of dimensions according to standards. It applies to certain ALU profiles for windows, doors and shutters. A 5-year warranty is also guaranteed for con-

*Warranties of MIK windows and doors and other products from our sales offer are valid only when in compliance with the rules and arrangements set in the **Instructions for Use and Maintenance and Warranty Certificate** that our customers receive when purchasing MIK windows and doors.*



 **MORE ON MIK WARRANTY AT**  
[en.mik-ce.si](http://en.mik-ce.si)

# Reference



Business Building Inprime, Slovenia



School Center of middle schools Velenje, Slovenia



Business Building Iskratel, Slovenia



Business Building Majske Poljane, Slovenia



School Center of middle schools Velenje, Slovenia



Business Building Tehnopolis, Slovenia



Residential property Nackenheim, Germany



Business Building Veking, Slovenia



Business Building Nackenheim, Germany



Residential area Glavarjeva rezidenca, Slovenia



Manufacturing facility Tajfun, Slovenia



Grand Hotel Primus, Slovenia



Business Building GLS, Slovenia





Residential property Nackenheim, Germany



Residential property Razgledi ob Paki, Slovenia



Private house, Slovenia



Middle school Maribor, Slovenia



Private house, Slovenia



2. primary school Celje, Slovenia



Retirement home Impoljca, Slovenia



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 Celjska cesta 55, 3212 Vojnik, Slovenia  
**t** +386 3 425 50 50  
**f** +386 3 425 50 60  
**e** mik@mik-ce.si



en.mik-ce.si



## MIK showroom

### Celje

Opekarniška cesta 15b  
 3000 Celje, Slovenia  
**t** +386 590 82 810  
**f** +386 590 82 811  
**e** prodaja.celje@mik-ce.si

### Izola

Prešernova cesta 55  
 6310 Izola, Slovenia  
**t** +386 5 640 50 50  
**f** +386 5 640 50 59  
**e** prodaja.izola@mik-ce.si

### Kranj

Poslovna cona A 12  
 4208 Šenčur, Slovenia  
**t** +386 590 250 50  
**f** +386 590 250 52  
**e** prodaja.kranj@mik-ce.si

### Ljubljana

Jarška cesta 10a in 10b  
 1000 Ljubljana, Slovenia  
**t** +386 1 547 20 20  
**f** +386 1 547 20 31  
**e** prodaja.ljubljana@mik-ce.si

### Maribor

Žolgarjeva ulica 15  
 2000 Maribor, Slovenia  
**t** +386 2 480 01 45  
**f** +386 590 828 05  
**e** prodaja.maribor@mik-ce.si

### Murska Sobota

Kocljeva ulica 13  
 9000 Murska Sobota, Slovenia  
**t** +386 2 531 11 50  
**f** +386 2 531 11 55  
**e** prodaja.murskasobota@mik-ce.si

### Nova Gorica

Erjavčeva ulica 27  
 5000 Nova Gorica, Slovenia  
**t** +386 590 244 00  
**f** +386 590 24 402  
**e** prodaja.novagorica@mik-ce.si

### Novo mesto

Seidlova cesta 27  
 8000 Novo mesto, Slovenia  
**t** +386 7 302 10 70  
**f** +386 599 40 583  
**e** prodaja.novomesto@mik-ce.si

### Vojnik

Celjska cesta 55  
 3212 Vojnik, Slovenia  
**t** +386 3 425 50 50  
**f** +386 3 425 50 60  
**e** prodaja.celje@mik-ce.si

## Authorized dealer

### Rogaška slatina

Termotris,  
 Igor Majer, s.p.  
 Kidričeva ulica 30  
 3250 Rogaska Slatina,  
 Slovenia  
**t** +041 514 301  
**t** +041 324 765



### Legend

- MIK showroom
- Authorized dealer