



05/2024.

MANUAL

FOR HANDLING AND
MAINTENANCE

Thank you for your trust and congratulations on choosing a product from the assortment of LOKVE d.o.o.

You have made the right decision because you have selected products that feature top-notch qualities, high-quality natural materials combined with a century of experience and modern CAD/CAM technology, supported by an implemented system of computer-guided and monitored production throughout all segments of the production process. As such, our products meet the high standards set by the market.

The quality of our products is confirmed by certificates issued by:

- "Euroinspekt drvokontrola" (Croatia)
- "IFT Rosenheim" (Germany)
- "Treviso Tecnologia" (Italy)

To maintain the usability and utility of the products for as long as possible, we recommend proper use, timely care, and maintenance. It is important to adhere to the instructions and information provided in the handling and maintenance manual to avoid voiding the warranty or guarantee (this does not include damages caused by improper use and repairs performed by unqualified persons). This will reduce maintenance costs, avoid risky situations, and extend the lifespan of the windows.

Lokve d.o.o. reserves the right to make changes to the products that may differ from the technical data and sketches provided in this manual. Lokve d.o.o. prohibits copying, transmitting data in electronic form, and using these instructions in whole or in part. This manual is an integral part of the sales conditions of Lokve d.o.o. We reserve the right to modify details, technology, or design. The warranty is valid only with the presentation of the receipt.

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1. PRODUCT LIABILITY AND WARNINGS

It is essential to strictly adhere to the provided instructions to maintain the quality, functionality, and appearance of the products; otherwise, we are not responsible for any potential damage. Follow the instructions and advice in this manual to extend the lifespan of your joinery.

Important Note: After installation, ensure proper ventilation of the rooms several times a day. Excess moisture in the room can result in deformation and damage to the products. Prolong the durability of windows by reducing moisture. Prevent storing products in locations where humidity exceeds 5% at 20°C. Otherwise, condensation and runoff may occur on wooden parts, deformation of insulating materials, damage to hardware due to corrosion, mold formation (fungus), loss of adhesion, and peeling of lacquer. Pay special attention to the danger of high air humidity during plastering and screed work in construction.







During the installation of joinery, prevent any mechanical damage and chemical influences that could damage the product. The product should be adequately protected from such influences. Hardware is crucial for safety and should be regularly inspected to ensure they are firmly attached and not worn out; otherwise, they should be secured or replaced. Safety-critical hardware components (stops, opening limiters, hardware scissors) can only be removed by a qualified person performing hardware adjustments or removing sashes. During windy conditions or drafts, window and door sashes should be closed to minimize the risk of damage.

The standard glass configuration does not meet the requirements for increased burglary risk, fire protection, or breakage hazards. There is no burglary protection for unlocked doors. During construction work, wooden, aluminum, and plastic parts must be protected from rain, snow, moisture, mechanical, chemical, and similar damage. The space between wooden elements and aluminum cladding is designed for ventilation and must be protected (to prevent these ventilation openings from being blocked) until construction installation work is completed. Use appropriate adhesive tapes that will not damage wood, lacquer, or aluminum to protect surfaces. These tapes should be removed as soon as possible. If the tape remains adhered for an extended period, UV-stable adhesive tape should be used. All dirt (plaster, concrete, final facade layer, dirt from insects, soot, pollen, etc.) must be removed from the elements immediately upon occurrence without using aggressive cleaning agents.

Insect excrement, pollen, soot, iron dust (track wear, metal foundries), and similar substances, in combination with rain and intense UV radiation, can cause stains on frame surfaces that are difficult to remove. Therefore, such stains should be cleaned as soon as possible with an appropriate cleaner. Lacquered and anodized aluminum surfaces can suffer irreparable damage if treated with alkaline agents. In winds exceeding 60 km/h, shutters and blinds should be raised inside their boxes to prevent any damage. Regularly check the strap for raising and lowering shutters, as it is subject to wear and should be replaced promptly with a new one.

Sharp edges of window and door elements can cause injuries if handled carelessly, especially if someone is below an open window. A closed window does not allow for the minimal ventilation necessary and beneficial for health and heating. An open or tilted window sash does not meet the requirements for sealing, sound insulation, thermal insulation, or burglary protection. For swinging doors, a stopper should be installed in the floor to prevent the door leaf from hitting the jamb. Otherwise, if the door leaf hits the jamb, it not only causes damage to the leaf but also increases the load on the hinges due to the impact, potentially causing significant damage to both the wall and the leaf. Electrical components such as electric door openers, shutter motors, blinds, vents, and other electrical parts should only be operated by a qualified person. Any increased thermal load on the glass can result in sudden breakage. Overheating of the glass can be caused by other heat sources (heating devices, lighting) and by solar radiation, which is intensified if there are dark objects near the glass. Stickers and paints should definitely be avoided directly on the glass.

1.1. Safety instructions

SYMBOL	MEANING
	<p>DANGER!</p> <p>Close life threatening or heavy injury can occur from falling out the opened window or balcony doors!</p> <ul style="list-style-type: none"> · Always stay cautious near the opened window or balcony doors! · Keep kids or adults that can not estimate the danger away from dangerous places!
	<p>WARNING!</p> <p>Heavy injuries can occur if body parts get squeezed in the vent space between window sash and frame!</p> <ul style="list-style-type: none"> · Stay extremely cautious while closing the window or balcony doors! · Keep kids or adults that can not estimate the danger away from dangerous places!
	<p>WARNING!</p> <p>Injury and material damage can occur if window sash is additionally burdened!</p> <ul style="list-style-type: none"> · Avoid additional burden to the window sash!
	<p>ATTENTION!</p> <p>Possible wind injuries!</p> <ul style="list-style-type: none"> · Do not make draft by opening the windows! · Windows should stay shut when there is draft and heavy wind!
	<p>ATTENTION!</p> <p>Possible injuries may occur from barriers stuck between window sash and frame!</p> <ul style="list-style-type: none"> · Avoid putting barriers between window sash and frame!
	<p>ATTENTION!</p> <p>Injury and material damage can occur if window sash is pressured to the window opening!</p> <ul style="list-style-type: none"> · Avoid pressure of window sash to the window opening!

2. PACKAGING, STORAGE, AND TRANSPORTATION

Products are stacked on a pallet in the position they will later be installed at the construction site. They are separated and protected with foam padding. The pallet is wrapped in protective stretch film to shield the products from dirt and potential damage.

The customer assumes full responsibility for the products in the event of self-unloading and transportation.

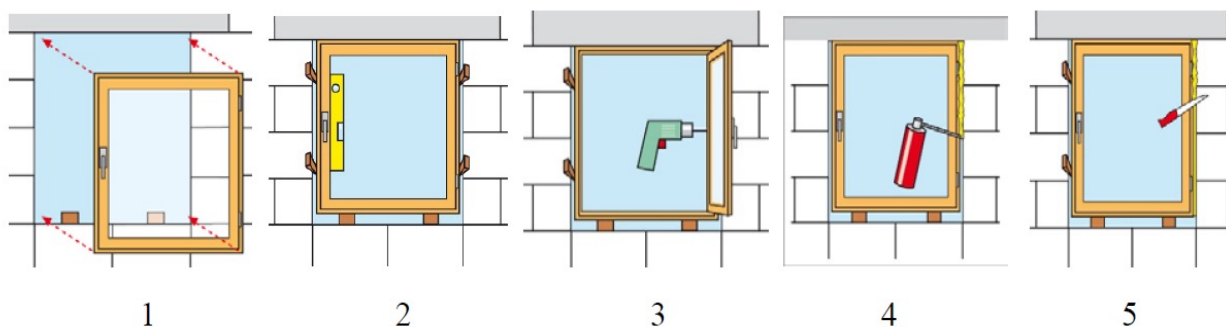
Transport the products with extra care due to the possibility of glass breakage. Transportation should be conducted exclusively in enclosed vehicles to protect the products from moisture and sunlight. During transfer using a crane or forklift, avoid sudden jerks due to the risk of breakage and impact damage.

Windows must be stored in a dry and well-ventilated space. Larger products should never be leaned against smaller ones to prevent warping and potential surface damage to wood or aluminum. Products should be separated from each other using foam padding or similar materials. To prevent dust accumulation, protect the products with cardboard or film. Ensure that the storage area is safeguarded against any potential subsequent damage to the products.



3. INSTALLATION OF EXTERIOR JOINERY

Installation and mounting should only be performed by qualified personnel who adhere to industry standards, regulations, and construction guidelines. Properly performed installation of windows/doors significantly impacts the quality of the joinery. Lokve d.o.o. assumes no responsibility for any issues arising from self-installation.



Installation Steps:

1. Place the product into the masonry opening on solid support blocks.
2. Adjust the product to ensure it is level vertically and horizontally, then secure it in place at sufficient points using wedges.
3. Drill holes and secure the product frame ("stock") with "turbo" screws.
4. Fill the gap around the perimeter of the frame with PU foam.
5. Remove any excess PU foam with a scalpel and remove the wedges that held the frame before tightening the screws.

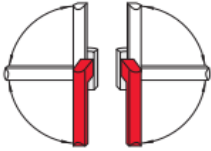
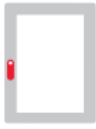

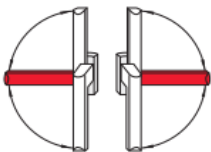


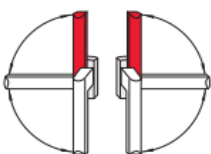




Pre- and Post-Installation Processes:

- Thoroughly protect the glass and windows to minimize the possibility of visible plaster marks.
- Remove stickers and adhesive tapes immediately after installation.
- Never use alcohol, gasoline, or other aggressive substances for cleaning (they must not come into contact with wooden surfaces).
- Frequent ventilation of rooms is recommended to protect the windows from moisture generated during installation.

4. HANDLING





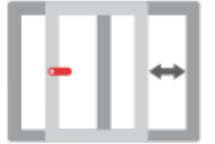


4.1. Opening/Closing Windows and Tilt-Slide Doors

The following symbols illustrate the different handle positions and the resulting positions of the window sashes, balcony doors, and tilt-slide doors.

Handle position	Window sash position	Symbol	Meaning
			Closed window sash.
			Opened window sash.
			Tilted window sash.
			Not suitable- wrong position on window sash.

4.2. Opening/Closing of sliding doors

Following symbols show different handle position resulting in different sliding doors position.

Handle position	Sliding door sash position	Meaning
		Sliding doors closed.
 		Sliding doors opened- sliding.
		Tilted sliding door position.

5. HARDWARE ADJUSTMENT

Adjustment of window hardware, balcony door hardware and hidden hardware.

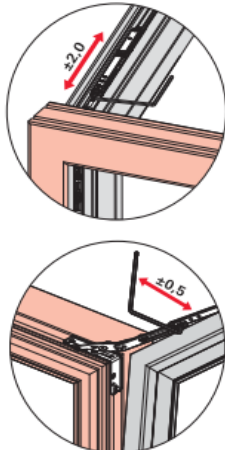
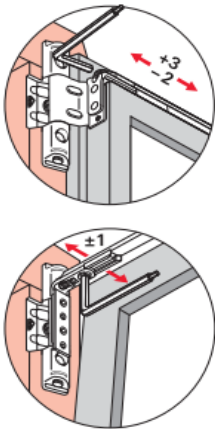
Wood windows and balcony doors

Bearing side E5

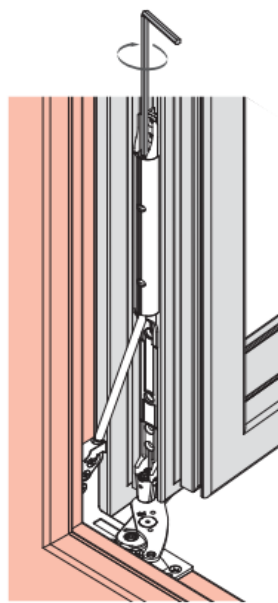
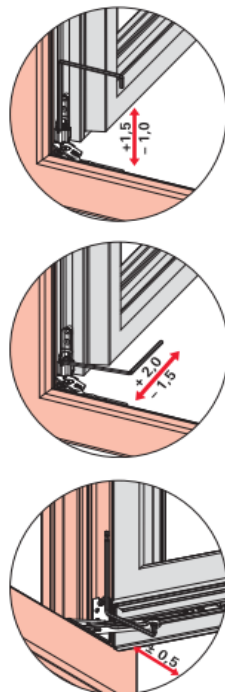
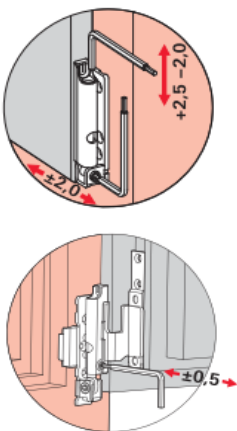
Bearing side Designo

Designo - Hardware

Scissor bearing

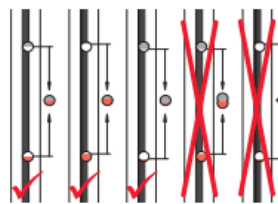


Corner bearing





The hardware is adjusted in the open wing position (90°) with Allen key no. 4: adjust the screw so that the red and gray circle align and form a whole circle

Visual control:



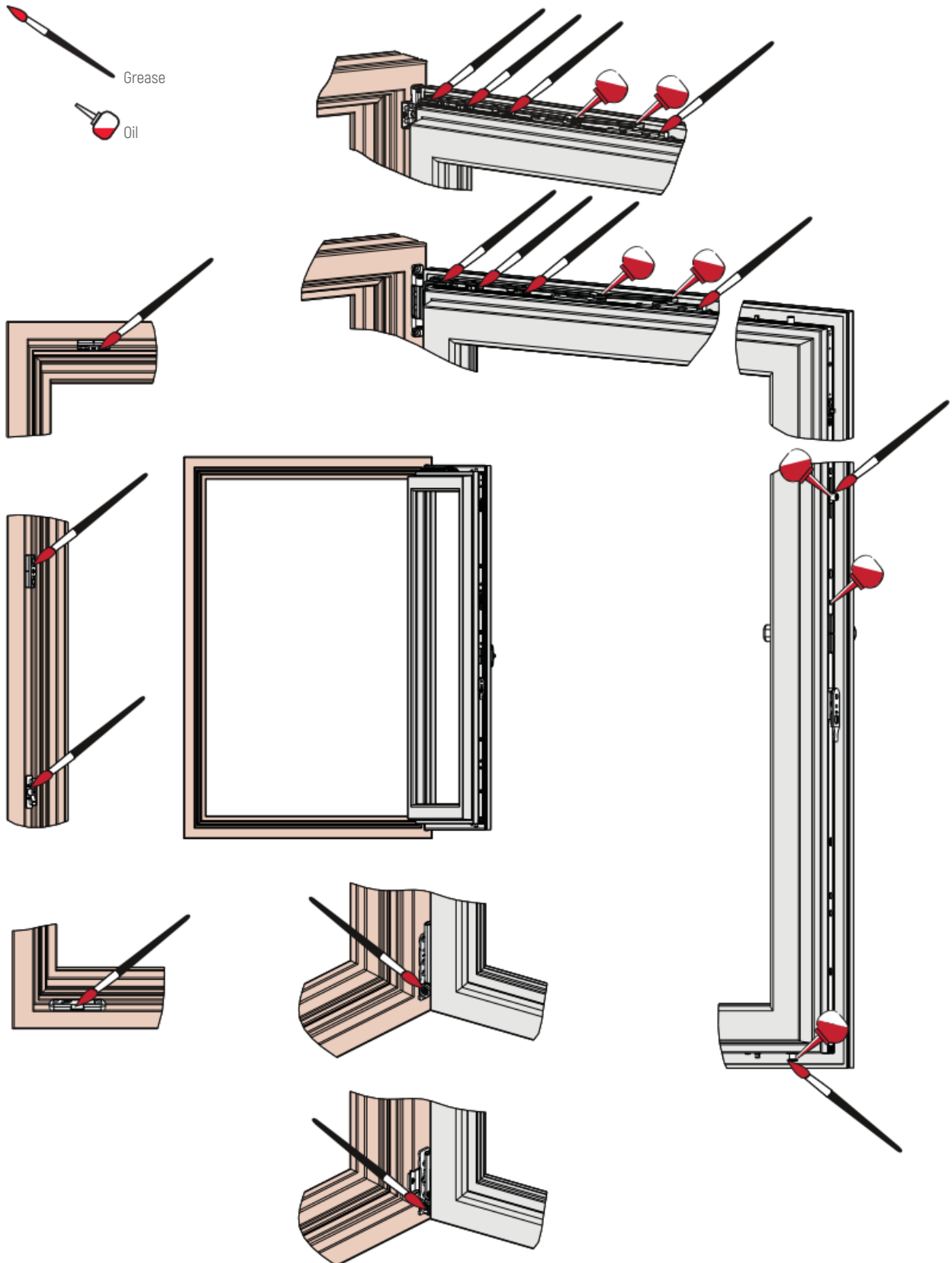
Tools required

Image	Description
	Imbus 4 mm
	Imbus 2,5/4 mm

*** Adjustment of sliding doors hardware should be done by a professional.

6. MAINTENANCE AND GREASING OF HARDWARE

Hardware is the most used part of the product, so for it's proper functioning it has to be greased once a year.

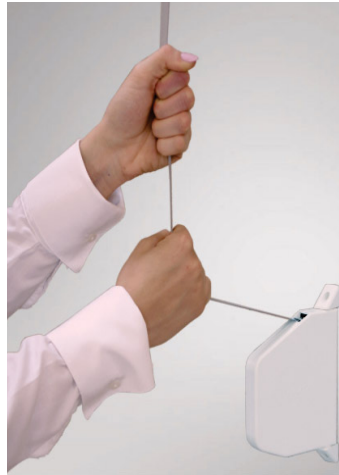


7. ADDITIONAL EQUIPMENT

7.1. Blinds

A window protection option is the installation of blinds boxes. Classic control of blinds is simple and is done using a tape that folds a blind inside a blinds box. Motor control of the blinds is done by pressing switch attached to the wall.

In case of wind stronger than 60 km/h, blinds should be raised in their box to prevent any damage.



8. CLEANING AND MAINTENANCE

8.1. In general

External joinery (windows, doors and walls), which are built into the building openings, during that use, are exposed to numerous influences that they have to resist to in order to keep all its functional and aesthetic properties required for flawless operation.

During its lifetime, carpentry is exposed to atmospheric influences (rain, snow, ice, sun, wind), therefore it is necessary to inspect the general condition of the carpentry at least once a year, in order to detect eventual defects in the right time and prevent them from happening.

Functional parts (hardware) needs to be greased once a year in the designated places, i.e. as stated in this Instruction.

Pay special attention to the areas where the corner joints of the sash and frame are located, and if cracks appear in the coating or gaps between construction elements (at corner joints) - it's crucial to spot them in time and react fast.

In addition to the weather, external components are exposed to an increased amount of smoke, industrial fumes, dust, etc. Deposits of these substances in combination with rain and condensation can damage the surface and change the external appearance. To avoid this from happening we recommend cleaning the external surface more often.

8.2. Wooden surfaces

Windows and doors are made of high-quality wood and have a final surface protection with acrylic varnish, according to the Lokva tone chart. Wood is a natural material, the beauty of which lies in differences such as structure, texture, color, and so by regularity maintaining it, we extend its durability.

Regular cleaning of wooden surfaces is necessary. In this way, the surface of the window is maintained, and it prevents dust, smoke, atmospheric effects, acid rain and various aggressive substances from eroding into protective paint surface, in order to extend the life of the product.

When cleaning, it is necessary to use non-aggressive products and soft, clean cotton cloths. It is recommended to clean it with a care and maintenance product at least twice a year, for a better protection of the wooden surfaces.

8.3. Aluminum surfaces

The aluminum covering protects the wooden parts of the joinery from the effects of the weather and damage. Cleaning of aluminum surfaces is mandatory at least once a year by using warm water, mild universal cleaning products and soft fabrics and rinsing with cold water. The use of aggressive cleaning agents is not allowed because it can damage the aluminum surface.

84. Damage repair

The varnish layer can be damaged due to weather conditions and during construction. In any case, major damage should be repaired by a specialist. Small damages such as scratches and small cracks can be repaired in the early stages using fine sandpaper, brushes and coatings.

It is essential to repair damaged parts as soon as possible, because otherwise water can penetrate into the wood, freeze in the winter, and lead to peeling of the varnish. It is possible to repair the damage later, but with a much greater investment of time and money. There is no specific recommendation for window maintenance intervals. The reason for this is that the windows are exposed to different conditions. Products that are placed on the south or west side are more exposed to the sun during the summer months, and thus are prone to greater moisture oscillations in the elements, and therefore special attention should be paid to them, especially after the summer period of the year. In coastal areas, all materials and products, including carpentry, are extremely exposed to climatic conditions where the wind blows more often and among other things, there is salt, which has an extremely aggressive effect on all materials, including carpentry and all its parts.

Carpentry that is installed in mountain and sea areas, because of the things written above, requires more frequent cleaning, inspections, and generally more frequent maintenance. Maintenance intervals mostly depend on the location of the facility, the exposure of individual products, and weather conditions (sun, rain, snow and wind). The golden rule for an extended window life is: Check each window when it is cleaned, at least once a year (spring or autumn). Pay attention to atmospheric damage effects (cracks, dents, bubbles). It is also very important to check the windows after the hail. Paint damage must be repaired immediately. Sand the damaged areas with 180-grit sandpaper, and apply a layer of finishing varnish. If the wood is touched during sanding, it is necessary to first apply a base coat, and after the base coat has dried, it should be sanded with 180 to 220 grit sandpaper. Apply the finish coat at least twice to the surface that is being repaired. The drying time of the coating varies from 4 to 8 hours, depending on the weather conditions and the thickness of the application. The next coating layer should be applied after 24 hours. Make sure that the repair is not carried out at a temperature lower than 15°C or in extreme heat.

9. VENTILATION AND CONDENSATION

Prevent excessive exposure to moisture (max. 55%), as it leads to repeated damage such as swelling of wood, damage to varnished surfaces (cracking and peeling of paint), deformation of structural elements, formation of molds and fungi, which leads to an unhealthy living environment.

Regular airing of rooms has multiple benefits:

1. Healthy life: Intake of oxygen for breathing and release of polluted air.
2. Energy conservation: When it is needed, ventilation prevents unnecessary cooling of the walls and thus saves energy.
3. Prevents damage to the structure of the building.

Causes of high air humidity:

- Building moisture - especially after plastering, making glaze, painting walls.
- Humid rooms such as bathrooms, showers, laundry rooms, indoor pools and basements.

Consequences of high air humidity:

- Formation of fungi
- Rotting
- Damage to lacquered surfaces
- Swelling of the wood (disables the functionality of the product)

Preventing the formation of condensate:

- The main rule: regular ventilation of the premises
- Occasional daily ventilation depending on air humidity. Open the window as much as possible, several times a day in short intervals.
- Turn off the heating when ventilating (the room temperature must not be below 15°C)
- Use vents in winter to ensure minimal air change. The use of vents in winter can reduce condensation.
- In case of constantly high humidity (more than 55%), it is necessary to ventilate several times a day.

Tips for the planning and design phase:

- When ordering a window, it is advisable to order a fitting that enables an opening to the "ventus" (kipp).
- Place heating elements under all openings
- If possible, position the windows in the center of the wall or in the insulation zone
- Making the facade after the plaster has dried

9.1. Quick-drying cement screed

When making a classic cement screed, ventilation is not possible for 14 days, the reason for this is that the surface is insufficiently dried and does not have sufficient strength. Thus, construction moisture remains trapped in the premises.

In this case, moisture penetrates through the final layer of woodwork lacquer and into the wood. Such penetration of moisture can cause the wood to swell and make irreparable damage. In that case, Lokve d.o.o. bears no responsibility for damage to the woodwork.

The advantages of quick-drying cement screed are obvious:

Most quick-drying screeds can be walked on in as little as 2 days, thereby airing out the rooms so that excess accumulated moisture can escape. This means that windows and other elements of the building (especially walls) are safe from damage caused by moisture, which is not the case if we make a cement screed in the classic way. Due to the shorter drying time, the walls do not absorb a large amount of moisture, which is a good basis for a healthy and pleasant life and working environment. However, the decisive advantage is the significantly shorter construction time, which results from the extremely fast drying of the screed. These positive factors can certainly be measured with a slightly higher cost.