

## **RAUVISIO brilliant**<sup>™</sup> high-gloss acrylic surface

Technical information

na.rehau.com/brilliant



# Contents

This manual contains safety-related information that requires your special attention. It is indicated with the safety alert symbol and the signal words described below:

<u></u> DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a risk of property damage, including damage to the individual components.

DISCLAIMER: The technical suggestions in this guide are designed to provide you with the best results when working with RAUVISIO brilliant.

- 03 Information and safety warnings
- 05 Product description
- 06 Transport, packaging and storage
- 08 Prerequisites for processing
- 09 Prior to processing
- 10 Processing of RAUVISIO brilliant
- 12 Technical data
- 14 Installation guidelines
- 15 Care and usage instructions for the end user

## 01 Information and safety notes

### Latest version of the technical information

To ensure your safety and proper use of our products, please regularly check whether a more recent version of the technical information is available.

You can obtain the latest version of the document from your local retailer, your REHAU sales office or download it from **na.rehau.com/brilliant** 

#### **Proper use**

RAUVISIO products may only be planned, processed and installed in accordance with this technical information. Any other use is in violation of the specifications and is therefore prohibited.

### Suitability of the material

Our valid technical information is to be observed for the processing/installation and use of RAUVISIO brilliant. Our technical information is based on empirical values and knowledge acquired up to the time of printing. The dissemination of this information does not comprise any assurance of the properties of the products described. No explicit or implicit guarantee may be derived from it. The information does not release the user/purchaser from their obligation to assess the suitability of this material and the correct processing thereof to attain the required results in terms of objective and application.

## **Publication of information**

It is essential to ensure that your customers, also including end customers, are aware of the necessity to observe the current technical information as well as instructions for the care and use of RAUVISIO brilliant.

The care and usage instructions must be made available to the end customer either by you or by your customers.

Note to our distribution partners and customers that press RAUVISIO acrylic laminates and resell the laminated boards: Please also inform your customers of the need to follow the current technical information and make this available to them.

Note to processors of pressed acrylic laminate boards: Please ensure that at least the installation guidelines and the care and usage instructions are handed over to your customers and to fabrication and installation companies.

#### Safety and installation instructions

Observe the information on packaging, accessory parts and installation instructions. Keep the installation instructions so that they are always available. If you do not understand the safety instructions or installation recommendations, or if there is any uncertainty with regard to their content, please contact your local REHAU sales office.

### **Relevant regulations and safety equipment**

All applicable safety and environmental regulations as well as the regulations of the trade supervisory center and professional association must be strictly observed. These always take priority over the instructions and recommendations given in the technical information.

## CAUTION

To reduce the risk of injury always use safety equipment such as

- Gloves
- Safety goggles
- Ear protection
- Dust mask

### Adhesives and additional tools

Strictly observe the safety instructions for any adhesives.



## CAUTION

To reduce the risk of injury strictly observe safety instructions for any adhesive Always store additional tools such as alcohol-based cleaning products and other easily flammable materials in safe and well-ventilated places.



To reduce the risk of injury ensure adequate ventilation and extraction for the processing machines. If production dust is inhaled, provide fresh air and in the event of symptoms seek medical advice.

### Ventilation/extraction, production dust

Dust created by drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. Appropriate protective measures should be taken when processing this material.

California residents, visit **www.rehau.com/us-en/ ca-prop-65** for more information.

### Protective measures and disposal

RAUVISIO brilliant is a coextruded material made from acrylic and styrene copolymer that is not harmful to the environment. The dust that forms is not toxic. The dust concentration is to be minimized through suitable protective measures such as extraction and use of a dust mask. Dust from RAUVISIO brilliant presents no specific risk of explosion.

## Disposal code in accordance with the Waste Catalog Regulation:

- 170203/Construction and demolition works consisting of timber, glass and plastic
- 120105/Waste from mechanical shaping processes and from the physical and mechanical surface finishing of metals and plastics (plastic swarf and lathe swarf)

### **Fire behavior**

Due to the composition of its main ingredients acrylic and styrene copolymer, RAUVISIO demonstrates favorable fire behavior and is categorized in DIN 4102-B2 as normal flame resistance. In the event of a fire, no toxic substances such as heavy metals or halogens are released. The same fire-fighting techniques can be used as for construction materials containing wood.

## 

## ARNING

To reduce the risk of serious injury or death use the following fire extinguishing procedures.

## **Fire-fighting**

Suitable extinguishing agents for fire-fighting are

- Water spray
- Foam
- CO2
- Extinguishing powder

A solid-stream water jet is unsuitable for safety reasons.

When fire-fighting, wear suitable protective clothing and if necessary standalone breathing apparatus.

## **02 Product description**

## 2.01 Product description

Instead of a clear top layer, RAUVISIO brilliant high-gloss acrylic surface has a color-matched PMMA layer giving it intense color depth with decades of UV stability. Our double-sided panels and doors with perfectly matched REHAU LaserEdge<sup>™</sup> provide absolutely uninhibited refection.

RAUVISIO brilliant has the following advantages:

- Mirror-like reflective quality
- Decades of UV stability
- Intense color depth
- Chemical and stain resistant
- Up to 60% lower production costs compared to painted components
- Editable with woodworking tools
- Ability to miter fold and cut
- Double-sided finished panel or cabinet door
- Matching floating shelves

## 2.02 Individual components

All RAUVISIO brilliant components can be ordered separately:

### **RAUVISIO brilliant High-gloss acrylic surface**

RAUVISIO brilliant is a multi-layer coextruded polymer laminate produced from a styrene copolymer base layer and an acrylate top layer. Due to the 0.7–0.8 mm thick material combination, RAUVISIO brilliant achieves a high tension force that has a positive effect on the surface smoothness and, in combination with a wooden substrate board, creates a mirror gloss surface.

#### Edgeband collection

Whether high-gloss or V-edge, REHAU offers several different edge design lines for RAUVISIO brilliant that leave nothing to be desired. They are all perfectly color-matched to the surface.

## 2.03 RAUVISIO brilliant composite pressed board

RAUVISIO brilliant is also available as a large pressed board (1300 x 2800 mm), consisting of double-sided acrylic laminate with an MDF board core.

## 2.04 Finished component RAUVISIO brilliant complete

Use the REHAU cabinet door portal to select RAUVISIO brilliant components and the matching edgebands and we'll deliver zero-joint fabricated panels or cabinet doors..

## 03 Transport, packaging and storage

## NOTICE

To reduce the risk of property damage use the following transport, packaging and storage procedures.

## 3.01 Transport and loading information

Upon delivery the external packaging must be immediately checked for signs of damage.

- If damage has occurred, open the packaging in the presence of the freight carrier and record the damage to the goods.
- The freight carrier's driver is to confirm the damage by giving their name, the freight carrier, date and signature.
- The damage is to be reported to the freight carrier within 24 hours. Otherwise the haulier's insurance company will not accept liability.

## Transport

Under no circumstances should the boards be exposed to temperatures higher than 140°F (60°C) during transport to avoid thermal overloading of the adhesive/laminate system.

In the case of increased thermal loading there may be interaction between the adhesive and acrylic laminate that may result in orange peel/waviness that impairs the mirror gloss finish.

### Delivery

Boards are shipped loaded on square timber battens or pallets to ensure they are kept flat.

- Ideally, packaging units should be unloaded with a forklift or similar equipment.
- If the appropriate lifting equipment is not available, the boards/laminate can be unloaded by hand.
- If manually unloading, precautions must be taken to ensure the boards/laminate are kept clean and are not subjected to undue mechanical loads (twisting, folding, bending, etc.).
- When unloading by hand, wear suitable protective equipment, e.g., gloves, as sharp edges can cause cuts.
- The use of transport aids such as suction lifters, lift handles and board transporters is recommended for handling; see also chapter "5.1 Unpacking."
- Bending is not permitted during lifting and movement of the RAUVISIO brilliant boards.

## 3.02 Packaging

With RAUVISIO brilliant the edges and surfaces must be protected. Particularly when moving, picking and further processing the boards, avoid or remove any dirt that may get between the individual boards. Otherwise the stack pressure/dead weight of the boards will inevitably cause indentations in the laminate surfaces.

• Protect the surface and edges with foam non-woven material. This will avoid marks being caused on the surface when stacking components.

## 3.03 Internal transport and storage

#### Inter-company transport

While being moved RAUVISIO brilliant boards must be fully supported along their complete length, and kept as flat and level as possible. The ideal method is to transport them in the packing variant in which they were delivered (no repacking recommended).

## Storage

RAUVISIO brilliant is supplied on pallets or square timber battens covered with appropriate protective boards. The packaging units with RAUVISIO brilliant are stackable. Due to the stack pressure, however, it is not permitted for more than five packaging units to be stored on top of one another.

RAUVISIO brilliant must be kept flat, level and fully supported along its complete length. It is recommended to store boards on the supplied pallet. Alternatively, boards must be supported by a minimum of four evenly spaced timber battens of equal size. This is necessary to prevent bending or warping.

In the event of storage in conditions not in line with those described above (pallet or on at least four equal battens), no assurances can be given against warping.

The material must be stored in closed, heated rooms in which the room temperature is between 15 and  $25^{\circ}C$  (59 and  $77^{\circ}F$ ) and the relative humidity is between 40 and 60%.

Prior to opening packaging units, boards must be allowed to acclimate to room temperature for at least 48 hours.

Prior to returning opened or partially used packaging units to storage storage the cover plate must be replaced on top. This is to prevent contamination and uneven temperature/humidity penetration (due to drafts or heating air), and thus counteract warping effects as well as surface damage.

## Protecting packaging units (PU)

The packaging units are to be protected against damage, large fluctuations in temperature and humidity, as well as high UV levels of artificial lighting or direct sunlight.

### Storage before and after bonding of the laminate

All materials that are bonded together must be acclimate for a sufficient amount of time and have the same temperature. After bonding, panels must be stored immediately in enclosed, heated rooms. Ensure that the storage temperature does not exceed 60°C (140°F).

## 04 Prerequisites for processing

## NOTICE

To reduce the risk of property damage follow these prerequisites before processing.

#### 4.01 Edgeband material

The use of a REHAU edgeband material is recommended to ensure continuity of appearance between the RAUVISIO brilliant surface and the edges. See chapter "6.5 Edging."

### 4.02 Processing individual laminates

## 4.02.01 Substrate

Wooden substrates, lightweight boards or composite material substrates are considered for use as a substrate for RAUVISIO brilliant. In order to meet the high demands on the surface it is critical that the substrate is selected with the intended application in mind. In principle the substrate should be chosen so as to ensure sufficient flatness.

Critical for a good appearance is the surface structure of the substrate. A fine surface structure is a prerequisite for an even high-quality surface.

An MDF board is recommended as a substrate here. It has a very fine surface structure from which only very small fibers are pulled out during processing (sawing, milling, drilling, adhesion). By comparison the quantity of fibers pulled out from a chipboard, OSB or plywood panel is much greater leading to the chance that the unevenness will be visible through the laminate thereby "distorting" the surface.

With chipboards, particles can fall out of the middle layer, leaving indentations in the laminate. This hazard does not arise when using an MDF substrate. An MDF substrate board is recommended for a high-quality surface finish.

## 4.02.02 Adhesive

In addition to selecting the suitable substrate board, selection of the correct adhesive is important to ensure board quality. Single component PUR hotmelts have become increasingly common in recent years. These adhesives can be easily applied to the board or substrate using rollers. A short press-down time is usually sufficient to ensure high initial strength. Pressing with a continuous roller lamination system is recommended to ensure a high-quality surface finish.

### Ensure adequate adhesion/final strength

An adhesion strength of approx. 80% is achieved after just a few hours. The adhesive joint takes max. seven days to achieve its final strength.

#### **Checking bonds**

Especially with custom applications, the bond must be checked by the customer to ensure compliance with specifications.

## 4.02.03 Balancing sheet

To ensure a homogeneous board that remains dimensionally stable when exposed to variations of temperature and moisture, a balancing sheet is required.

Generally a symmetrical composition is optimum when it comes to warpage. However, it is not always possible to create a symmetrical design. For this reason other materials may be used for the balancing sheet. Materials such as CPL (Continuous Pressing Laminates) or other polymeric materials may be used depending on application. Based on experience, the REHAU system is based on a symmetrical polymer structure and offers matched, finished components. This system is recommended for in-house pressing. For non-standard applications, such as melamine-coated wooden substrates, tests may be required to verify quality of the complete board. In general, resistance to humidity and warpage cannot be guaranteed in the case of asymmetrically bonded boards (i.e., where a REHAU polymer balancing sheet is not used).

## 05 Prior to processing

## NOTICE

To reduce the risk of property damage use the following unpacking and conditioning procedures.

5.01 Unpacking

Before opening the packaging unit, you must allow boards to acclimate to room temperature for sufficient time – at least 48 hours or longer, depending on the season.

### Carefully unpack the boards.

When opening the packaging, ensure that the surfaces are not damaged by sliding or sharp objects. Suitable lifting equipment must be used to separate individual boards.

Open the packaging with scissors. Do not use a sharp blade!

- Cut the packaging tape.
- 2 Cut the protective film even f
- 2. Cut the protective film away from sheets.
- Use two people and four vacuum lifting pads to lift the uppermost cover board vertically toward the top with care and without displacing it or remove the box in the case of individual packaging.
- 4. Dirt which can get trapped between the individual boards must be completely avoided or removed.

### 5.02 Check boards and laminates

Please check the RAUVISIO brilliant system components for the following points before further processing into finished goods:

- External damage such as cracks or marks
- Surface damage or blemishes
- Flatness (when purchasing pressed board)
- Surface tension of the laminate rear side (if handling individual laminates)
- Color consistency within the production batch

The surfaces of RAUVISIO brilliant are always supplied with a protective film applied. Despite this protective film, it may be that there are occasional minor defects in the laminates on delivery. These cannot be entirely excluded for technical production reasons and do not constitute a direct reason for complaint.

Where an order utilizes multiple laminate sheets, it is recommended that only laminate sheets with the same batch number are used. Uniformity of color across batch numbers must be checked prior to processing. Color consistency must be checked in natural daylight, although bright sunlight should be avoided. In case of deviations, a colorimeter should be used.

The costs incurred for checking the above-mentioned points cannot be accepted by REHAU. This also applies to consequential costs incurred in the further processing of defective goods.

## 5.03 Conditioning

RAUVISIO brilliant and all other materials to be processed such as substrate board, adhesive, balancing sheet and edgebands must be conditioned at room temperature (at least  $18^{\circ}C \{64^{\circ}F\}$ ) for a sufficient period of time (at least 48 hours).

Processing is carried out at room temperature. Particularly in the colder months, ensured that acclimation of all boards/laminates takes place. If there is incomplete acclimation of the laminate due to the stack size, the duration should be adjusted accordingly.

### 5.04 Documents for material warranty

Delivery notes and shipping labels should be retained to aid batch traceability in the event of a technical issue. The inkjet printing on the edge of the substrate board can also be used for the unique identification of a production batch. This must be given to the REHAU sales office in the event of a complaint.

## 06 Processing of RAUVISIO brilliant

#### NOTICE

To reduce the risk of property damage use the following processing procedures.

## 6.01 Proper handling of RAUVISIO boards

When placing the boards on the machine table, cover the machine table with a clean cover layer (wooden board, cardboard, etc.).

#### Formatting the boards

The nesting process is recommended to cut the boards to size. When formatting with a saw, be sure to observe the instructions for placing the board on the machine table (see above). In this case, use a scorer.

#### Between the processing steps

After milling/sawing, all residue must be removed and all surfaces cleaned.

Stack the workpieces in layers with clean and padded cardboard/foam material inserted inbetween each layer on a pallet.

### **Edging the workpieces**

Anti-static agents should be used while edgeband is being applied. Ensure that the boards are fed into the system cleanly and safely. Any loose chipping created must be safely removed via extraction.

#### **Drilling and milling**

Extraction must be used during drilling/milling operations to ensure that the swarf is removed.

### Packing the workpieces

Stack the workpieces in layers with clean and padded carton/foam material inserted inbetween on a pallet. Use a transport lock to prevent damage due to slipping or similar.

6.02 Preparing the individual laminates

## 6.02.01 Pre-treatment of the laminates and substrate boards

### Manual cutting of the laminate

For manual cutting of the laminate, a blade that cuts through the protective foil and scores the acrylate surface is suitable. The laminate can then be broken at the cut across an edge.

#### **Bonding of the laminate**

RAUVISIO brilliant is treated with a corona pre-treatment on the styrene copolymer underside. This pre-treatment ensures a good bond of the laminate to the adhesive. Due to a high wettability of the surface good adhesion is ensured. The wettability can be established using a test ink. The measurement for this is the surface tension, which is given in the unit [mN/m]. It is known that the surface tension reduces with time. It is therefore recommended that the laminate be processed within one year.

To permit secure adhesion, the surface tension must be more than 38 mN/m. In addition, at the start of each pressing operation, a test sample must be used to test the adhesive wetting of the rear side of the laminate. After the adhesive hardens, cutting must be carried out in the substrate with laminate removal (flat fiber tears with MDF).

If the surface tension is less than 38 mN/m, the styrene copolymer rear side must be post-treated. This can be done, for example, by way of flaming, corona/plasma treatment or priming.

To avoid damage due to the lamination process, ensure a clean processing environment and sufficient cleaning of the laminates and substrate materials. Here it is important that there are no particles on the laminate and substrate board after cleaning. Foreign objects of this type could leave indentations during the lamination process that are only visible once the protective film has been removed.

#### 6.02.02 Manufacture of the pressed board

The laminate must be placed or fed lengthwise on to the substrate board. This ensures that the laminate is lying parallel to the board and is not overhanging.

#### 6.02.03 After processing the pressed board

Before onward transport takes place, a rest period/setting time of min. 24 hours must be observed. The setting time should be agreed according to the information from the adhesive manufacturer. For further processing, it must be checked when the subsequent processing steps can be carried out, depending on the adhesive system and environmental conditions. Refer to the adhesive's product data sheet to do this.

With different colors and adhesives, there may be interactions in terms of the hardening time and adhesion. Before onward processing/shipping, ensure that there is adequate adhesion. This can be evaluated by removing the laminate from the substrate board. All the fibers must be fully pulled from the substrate here.

For picking/storing individual components, it is recommended to protect the surfaces with non-woven material or similar. This will prevent marks being caused on the surface when stacking components.

## 6.03 Mechanical machining of the pressed board

## Sawing/milling/drilling

RAUVISIO brilliant can be processed with most approved woodworking tools. When cutting RAUVISIO brilliant, a scoring saw blade must be used.

To allow accurate processing, it must be ensured that all tools are sharp and optimal machine settings are used. It is recommended that the optimal machine settings are determined by means of trials prior to starting production.

## Cutting metal decorative designs to size

When processing metallic decorative designs and intensive colors, ensure that the installation direction of all parts is the same as the logo direction on the protective foil. If the element is installed upside down, a different optical impression may be created due to the alignment of the metal or color particles.

## 6.04 Thermoforming of RAUVISIO brilliant

RAUVISIO brilliant can be thermoformed in the same way as any other thermoplastic material.

Care must be taken to ensure that the heat input into the material is not too high – this will result in an "uneven surface." If the temperature increase is too low this may cause stress cracks, or frozen-in tension that may release later on and cause cracks. Thermoforming is therefore a very delicate application area where the production process must be matched precisely to the laminate.

## 6.05 Edging

The use of a REHAU edgeband material is recommended to create a uniform appearance between the RAUVISIO brilliant surface and the edge. The best visual results are achieved by using REHAU LaserEdge. No joint line is visible here thanks to the pigmented polymer functional layer in the edgeband color. The REHAU edgeband product range can be supplied to match the surface in the materials ABS (acrylonitrile-butadiene-styrene) or PMMA (polymethylmethacrylate). In this way, particularly with PMMA and ABS edgebands which can be polished, a finished component can be produced with an invisible joint.

For further information, please contact your REHAU sales office. The resulting component quality (e.g., adhesion of the edgeband, appearance and application properties) depends on the machine settings and the board quality used and must be checked by the fabricator.

Optimum machine settings, tool configuration and cutting speeds are to be established individually prior to production using a series of samples; the REHAU Applications Engineering Department will be happy to support you with this.

Subsequent polishing of the radius can be carried out to achieve a seamless high-gloss finish between the surface and the edgeband.

### 6.06 The edged component

In addition to laminates, boards and edgeband, REHAU offers double-sided fabricated panels and cabinet doors finished with zero-joint REHAU LaserEdge.

For front applications (nominal dimension 3/4 in [19 mm])), a successful certification was carried out in collaboration with TÜV Rheinland in accordance with AMK guidelines.The certified component is characterized by the following quality features:

- Quality
- Usability
- Regular production monitoring

## 07 Technical data

RAUVISIO brilliant is an acrylic laminate that is made up of a coextruded styrene copolymer and acrylic layer.

The acrylic laminate is designed for furniture/design surfaces that are used in vertical interiors. The acrylic top side is protected by a PE foil, which must only be removed at the installation location.

Product data	Test standard	Laminate	Double-sided, pressed board	Edged component
Thickness	As per technical drawing based on DIN 438-2	0.6–0.8 mm ± 0.05 mm		
Pressed board MDF substrate 18 mm	As per technical drawing based on DIN 438-2		19.1 mm ± 0.4 mm	19.1 mm ± 0.4 mm
Width	As per technical drawing based on DIN 438-2	1300 mm ± 2.0 mm	1300 mm ± 2.0 mm	Dimension ± 0.5 mm
Length	As per technical drawing based on DIN 438-2	2800 mm ± 5.0 mm	2800 mm ± 5.0 mm	Dimension ± 0.5 mm
Angle deviation	As per technical drawing based on DIN 438-2	90° ± 0.3°	90°±0.3°	Max. 0.5 mm/1,000 mm
Edge defects	As per technical drawing based on DIN 438-2	15 mm	15 mm	

Visual properties	Test standard	Requirements	Test results
Surface gloss level	AMK-MB-009, 09/2010	Measurement with 60° measurement geometry	≥ 85 GLE high gloss
Color	AMK-MB-009, 09/2010	No significant change to the limit sample; even covering properties	Fulfilled
Surface	AMK-MB-009, 09/2010 following EN ISO 7823-2*	Uniform surface, surface defects must not affect the overall appearance from a distance of 2 ft (0.7 m). A flawless surface cannot be guaranteed due to the industrial production process, small imperfections and surface irregularities are permissible	Fulfilled
Light fastness	Based on DIN EN ISO 4892-2, Process B Duration of the test: to DIN EN ISO 105 B01–B06 Assessment of the sample: to DIN EN ISO 105 A02	Assessment according to the blue scale	Level 7
		Assessment according to the grey scale	≥ Level 4

\* This standard refers exclusively to the extrusion process step; downstream process steps are not taken into account.

Material properties of the layer material	Test standard	Requirement
Density (acrylic laminate)	DIN EN ISO 1183-1 (05.04)	1.06 g/cm <sup>3</sup>
Fire behavior	DIN 4102/1	B2
Material purity/sand content	Residue on ignition according to test specification	≤ 1%

Surface properties of the coating material	Test standard	Requirements	Test result
Surface tension Adhesive side	Check with test ink	≥ 44 mN/m upon delivery	≥ 38 mN/m during bonding
Chemical resistance*	DIN 68861/T1	1A/1B	See "Substances" table
Performance in dry heat	DIN 68861/T7	Stress group min. 7 D	No change at 70°C (158°F)
Behaviour in moist heat	DIN 68861/T8	Stress group min. 8 B	No change at 70°C (158°F)
Performance in water vapor	DIN EN 438-2	Level 5	
Scratch resistance	DIN 68861/T4	Class 4D	
Micro-scratch resistance	DIN CEN TS 16611 Procedure A	Class 4	
	DIN CEN TS 16611 Procedure B	Class 2	

\* The testing of the chemical resistance to DIN 68861-1 includes the substances given in the table on page 19,

other substances have not been tested specifically and are to be tested by the customer separately.

## Component tests on the edged component

REHAU provides RAUVISIO brilliant with or without edging. The details below refer to the finished, edged component with REHAU LaserEdge. Please note that REHAU only accepts warranty liability for its scope of supply as per the REHAU specification, not for the finished, edged components. The results of the component tests on the finished, edged component are dependent on the machine and process parameters to be set by the customer for processing RAUVISIO brilliant, using the suitable edgeband as well as full compliance with the REHAU processing instructions in accordance with this technical information. REHAU Applications Engineering Department provides appropriate support for the setting of machine and process parameters. Please note that our consultation in application technique is correct to the best of our knowledge, but we cannot accept any liability for this free service, which is provided without obligation.

Component tests	Test standard	Test result
Temperature resistance	Assessment to AMK-MB-001 (05/03)	Passed
Infiltration of water vapor	Assessment to AMK-MB-005 (07/2007), Module 1	Passed
Humid climate resistance	Assessment to AMK-MB-005 (07/2007), Module 2	Passed
Alternating climate resistance	Assessment to AMK-MB-005 (07/2007), Module 3	Passed
Long-term heat storage 4 weeks 50°C (122°F)	Assessment after 24h acclimation	Passed

## **08** Installation guidelines

1. The raw laminate and fabricated elements should only be transported on the original packaging unit.

2. Always unload packaging units sideways and from the middle.

3. The raw laminate and fabricated elements should always be stored on the original pallet or with 4-timber storage.

4. The raw laminate and fabricated elements must not be stored outside or in damp rooms.

5. Raw laminates and fabricated elements should always be stored appropriately at the installation location and not exposed to strong UV light sources.

Acclimate preassembled elements prior to installation for at least 24 hours at room temperature (min. 18°C {64°F}). At delivery temperatures below 0°C {32°F}, acclimate the elements for at least 48 hours on all sides.

7. No objects are to be rested on raw boards and fabricated elements as these could cause damage.

8. RAUVISIO brilliant is suitable for vertical applications indoors. Check with the manufacturer about special application cases if necessary.

9. All materials and components must be checked for damage or defects prior to processing/assembly.

10. Temporary storage must take place prior to installation exclusively in the original packaging in frost-free and closed rooms.

11. Load-bearing substructures, which are firmly connected to each other, are to be aligned so that they are flat and vertical.

12. To avoid stress cracks, no bending should occur during processing and assembly.

13. Do not bring unprotected corner connections of wooden substrates into contact with moisture prior to installation.

14. In the case of wooden substrate boards, all cut edges and raw board edges must be sealed so that they are watertight.

15. All drilled holes in the wooden substrate boards must be sealed during assembly so that they are watertight.

16. Tools must not be used on the surface.

17. No strong solvents, special cleaners (e.g., drain cleaners, industrial cleaners, abrasive cleaners or abrasive cleaning cloths) or strong chemical substances may be used on the surface.

18. Heavy dirt can cause scratches during cleaning, therefore always clean dirty areas carefully with a microfiber cloth.

19. Do not stand on unassembled or assembled RAUVISIO brilliant elements.

20. Installation for indoor vertical applications only.

National standards, specifications, legislation, operating instructions (e.g., electronic devices) or similar must be observed.

## **09** Care and usage instructions for the end user

The non-porous, homogeneous acrylic surface material is easy to clean and suitable for contact with food and is resistant to fungal and bacterial growth.

Clean with a damp microfiber cloth and mild soap if needed. Do not dry-wipe the acrylic finish. Avoid abrasive cleaners, solventbased cleaners and harsh chemicals. Do not use paper towels, brushes or scouring pads. REHAU is not responsible for any damage done by abrasive cleaning products or procedures.

It is possible that surface marks which affect the surface may be visible after many years of use, or through improper handling. The innovative structure of RAUVISIO brilliant allows these to be removed by manual or machine grinding and polishing.

RAUVISIO brilliant is resistant to most substances found in the household. Prolonged exposure to aggressive substances can leave behind marks or damage the material.

RAUVISIO brilliant is warm and pleasant to the touch and has an excellent visual depth effect.

	RAUVISIO brilliant		
Substances	т	Result	
Acetic acid	16 h	5	
Citric acid	16 h	5	
Ammonia water	16 h	5	
Ethyl alcohol	16 h	5	
Red wine	16 h	5	
Beer	16 h	5	
Cola	16 h	5	
Coffee	16 h	5	
Black tea	16 h	5	
Black currant juice	16 h	5	
Evaporated milk	16 h	5	
Water	16 h	5	
Petrol	16 h	5	
Acetone	16 h	1	
Ethyl-butylacetate	16 h	1	
Butter	16 h	5	
Olive oil	16 h	5	
Mustard	16 h	4	
Onion	16 h	5	
Disinfectants	16 h	3-4	
Cleaning agent	16 h	5	
Cleaning solution	16 h	5	

## The table shows the media tested and the exposure time:

T Exposure time

h hour(s)

Requirement as classification code to DIN EN 12720:2009-07

#### Assessment according to DIN EN 12720 (07/2009)

Chemical durability	Result
5	No visible change
4	Just noticeable change in gloss or color
3	Slight change in gloss or color; the structure of the test surface is not changed
2	Heavy marks visible; the structure of the test surface is however largely undamaged
1	Heavy marks visible; the structure of the test surface is changed
0	Test surface severely changed or destroyed

#### **Customer Service Contacts**

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