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## **RAUVISIO brilliant** Noble Matt

Technical information



# **REHAU**

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This technical information pertaining to the "RAUVISIO brilliant" is valid from April 2021 onwards.

With the publication of this document, the previous versions are no longer valid.

Our current technical documents are available for download at [www.rehau.de/rauvisio-brilliant](http://www.rehau.de/rauvisio-brilliant).

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All dimensions and weights are approximate. Subject to errors and modifications.

# 01 Information and safety instructions

## Validity

This technical information is valid worldwide.

## Current relevance 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 current version of the document from your specialist retailer, your REHAU sales office or you can download it at [www.rehau.de/rauvisio-brilliant](http://www.rehau.de/rauvisio-brilliant).

## Navigation

At the beginning of this technical information, you will find a detailed table of contents with the hierarchical headings and corresponding page numbers.

## Pictograms and logos



Safety notice



Legal notice



Important information which must be observed



Your benefits



Information available online

## Intended use

RAUVISIO products may only be configured, installed and operated as described in this technical information. Any other use is deemed to be outside the intended scope of application.

## 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.

## Disclosure 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 (chapter "9 Installation guidelines") and the care and usage instructions (chapter "10 Care and usage instructions for the end user") are handed over to your customers and to fabrication and installation companies.

### **Safety instructions 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 centre and professional association must be strictly observed. These always take priority over the instructions and recommendations given in the technical information.

Always use safety equipment such as

- Gloves
- Protective goggles
- Ear protection
- Dust mask

### **Adhesives and additional tools**

Observe the safety regulations for the adhesives used and ensure that they are strictly observed. Always store additional tools such as alcohol-based cleaning products and other easily flammable materials in safe and well-ventilated places.

### **Ventilation/extraction, production dust**

Ensure good ventilation and extraction around the processing machines. If production dust is inhaled, provide fresh air and in the event of symptoms seek medical advice.

### **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 minimised 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 Catalogue Regulation:**

- 170203/Construction and demolition waste consisting of wood, glass, plastic
- 120105/Waste from mechanical shaping processes and from the physical and mechanical surface treatment of metals and plastics (plastic shavings and lathe shavings)

### **Fire behaviour**

Due to its composition of the main constituents acrylic and styrene copolymer, RAUVISIO brilliant demonstrates favourable fire behaviour and is categorised to 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.

### **Fire-fighting**

Suitable extinguishing agents for fire-fighting are

- Water spray
- Foam
- CO<sub>2</sub>
- 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

### 02.01 Product description

As an acrylic laminate, RAUVISIO brilliant represents the latest trends in furniture design and interior design. The seamless joining of boards and edges results in a flawless, matt component. Thanks to its brilliant depth effect, RAUVISIO brilliant replaces high-quality paint elements when designing surfaces.

RAUVISIO brilliant has the following advantages:

	RAUVISIO brilliant SR
High gloss	✓
Matt	✓
Hygienic	✓
Water-tight	✓
Can be thermoformed	
Non-porous	✓
Can be processed using conventional woodworking tools	✓
High tension force	✓
Repair of signs of wear possible	
High chemical resistance	✓
High scratch resistance	✓
Monitoring of production centres, TÜV certification	✓
 <div>           Qualität Gebrauchs- tauglichkeit Regelmäßige Produktions- überwachung www.tuv.com ID 000045032         </div> <div>For RAUVISIO brilliant SR complete</div>	

Tab. 02-1 Advantages of RAUVISIO brilliant

### 02.02 Individual components

#### RAUVISIO brilliant SR (matt laminate)

RAUVISIO brilliant SR (matt laminate) is a hard-coated matt variant which behaves like the high-gloss SR surface in terms of its properties. The only difference is the gloss level of the hard coating.

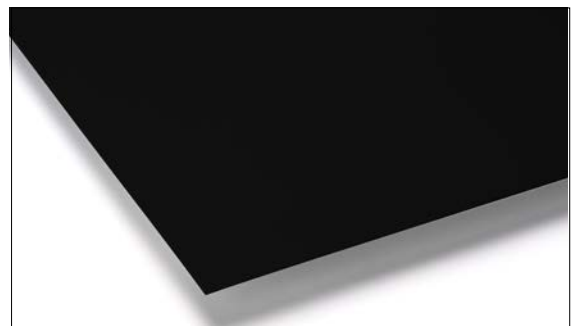


Fig. 02-3 Matt laminate RAUVISIO brilliant SR in the colour moro

### Balancing sheet (embossed)

Our specially developed balancing sheet is a perfect colour match for the acrylic laminate. The material thickness of the balancing sheet of 0.7–0.8 mm ensures minimal warpage of the laminated board.

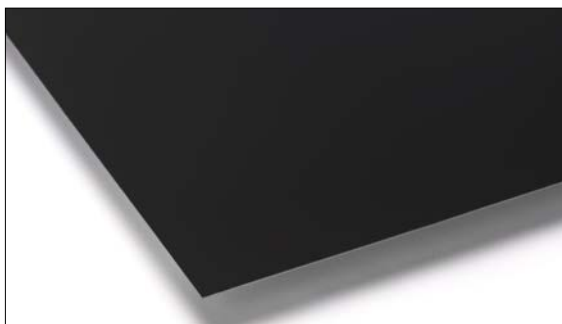


Fig. 02-4 RAUVISIO brilliant balancing sheet in the colour moro

### Edgeband collection

Whether high-gloss or matt uni-edge, V-groove or 3D look – REHAU offers up to seven different edge design lines for RAUVISIO brilliant (SR) that leave nothing to be desired. In total there are more than 60 edge types available from stock, all perfectly colour-matched to the surface.

As usual with REHAU, all edges are available as RAUKANTEX pure, RAUKANTEX plus or RAUKANTEX pro.



Fig. 02-5 RAUVISIO brilliant edge collection in the colour moro

## 03 Transport, packaging and storage

### 03.01

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#### Transport

Under no circumstances should the boards be exposed to temperatures higher than 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 and will therefore impair the mirror gloss finish.

### 03.02 Packaging

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#### Protect the boards with foam non-woven material.

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 surfaces with foam wrap.

This will avoid marks being caused on the surface when stacking components.

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### 03.03 Internal transport and storage

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#### 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.

#### Store boards flat and level.

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 (see diagram). This is necessary to prevent bending or warping.

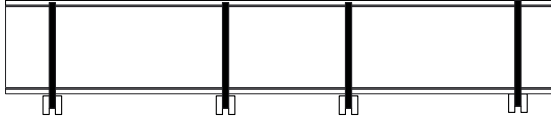


Fig. 03-1 Storage on four battens

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 °C and the relative humidity is between 40 and 60%.

## 04 Prerequisites for processing

### 04.01 Edgeband material

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

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### 04.02.03 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

### 05.01 Unpacking

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**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.

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Open the packaging with scissors.

Do not use a sharp blade!

1. Cut the packaging tape.
2. Cut the protective film away from sheets.
3. Two people and four vacuum lifting pads lift the uppermost cover board vertically towards 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.

### 05.03 Conditioning

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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 °C) for a sufficient period of time (at least 48 hours).

Processing is also carried out at room temperature.

It is to be ensured, in particular in the colder months, that acclimatisation of all boards/laminate takes place.

If there is incomplete acclimatisation of the laminate due to the stack size, the duration should be adjusted accordingly.

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## 06 Processing RAUVISIO brilliant

### 06.01 Proper handling of RAUVISIO boards

Placing the boards on the machine table.  
Cover the machine table with a clean cover layer (wooden board, cardboard, etc.) or rotate the board so that the protective foil is facing down and the balancing sheet facing up.

#### **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 in-between each layer on a pallet.

#### **Edging the workpieces**

Anti-static agents should be used whilst 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 in-between on a pallet.  
Use a transport lock to prevent damage due to slipping or similar.

### 06.02.03 After processing the pressed board

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.

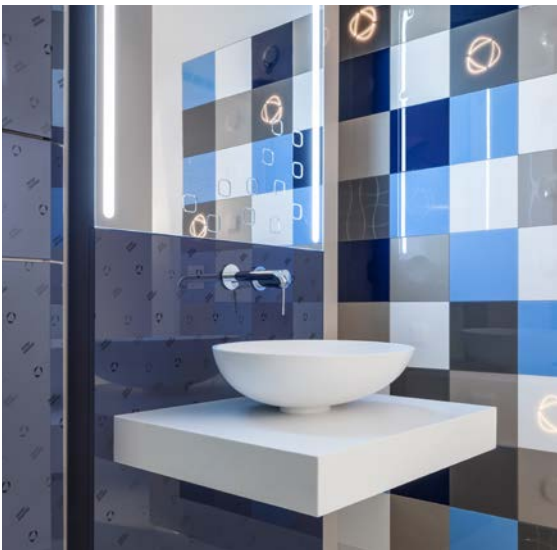


Fig. 06-1 Installation direction

### 06.03 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.

## 06.05 Edging

The use of a RAUKANTEX edgeband material is recommended to create a uniform appearance between the RAUVISIO brilliant surface and the narrow surface. The best visual results are achieved by using RAUKANTEX pro. No joint line is visible here thanks to the pigmented polymer functional layer in the edgeband colour. The RAUKANTEX 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.

The correct processing method is described in the usage instructions Technical delivery specifications sales RAUKANTEX (DML00513). 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.

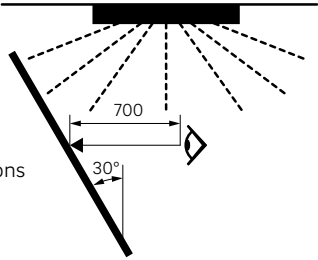


REHAU offers its customers both the standard primed edgeband RAUKANTEX pure and the 100% polymer zero joint edgeband RAUKANTEX pro (formerly RAUKANTEX laser edge).

# 08      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.

Visual properties	Test standard	Requirements	Test result
Surface gloss level	AMK-MB-009, 09/2010	Measurement with 60° measurement geometry	<6 GLE matt
Colour	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 0.7 m. A flawless surface cannot be guaranteed due to the industrial production process, small imperfections and surface irregularities are permissible.	<div>Fulfilled</div>
Light fastness	Based on DIN EN ISO 4892-2, Process B	Assessment according to the blue scale	Level 7
	Duration of the test: to DIN EN ISO 105 B01–B06		
Light fastness	Assessment of the sample: to DIN EN ISO 105 A02	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.



Surface properties of the coating material	Test standard	Requirements	Test result
Chemical resistance*	DIN 68861/T1	1A/1B	See "Substances" table on page 21
Performance in dry heat	DIN 68861/T7	Stress group min. 7 D	No change at 70 °C
Behaviour in moist heat	DIN 68861/T8	Stress group min. 8 B	No change at 70 °C
Performance in water vapour	DIN EN 438-2	Level 5	
Scratch-resistance			<b>RAUVISIO brilliant noble matt</b>
	DIN 68861/T4		Class 4D
Micro-scratch resistance	DIN CEN TS 16611 Procedure A		Change in gloss level 11% (measurement with 60° measurement geometry)
	DIN CEN TS 16611 Procedure B		Class 3
Antibacterial action in RAUVISIO brilliant noble matt	JIS Z 2801:2012 ISO 22196	Antibacterial activity of Escherichia coli and Staphylococcus aureus	≥ 4 log reduction ≥ 99.99% reduction

\* 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.

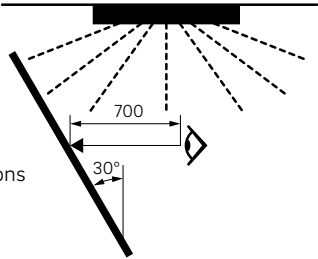
**Component tests on the edged component**

The delivery contents from REHAU includes the RAUVISIO brilliant with and without edging. The details below refer to the finished, edged component with RAUKANTEX pro. Please note that REHAU only accepts warranty liability for its scope of supply as per the REHAU specification, not for the finished, edged component. 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 vapour	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	Assessment after 24h acclimatisation	Passed

Balancing Sheet

Visual Properties	Test standard	Requirements	Test result
Colour			No significant change to the limit sample; even covering properties
Surface	AMK-MB-009, 09/2010	Uniform surface, surface defects must not affect the overall appearance from a distance of 0.7 m. A flawless surface cannot be guaranteed due to the industrial production process, small imperfections and surface irregularities are permissible.	<div>The diagram illustrates the inspection geometry for surface properties. It shows a horizontal surface with a viewing area defined by a 30-degree angle from a distance of 700 mm. A dashed line indicates the line of sight, and a solid line shows the viewing angle. A small icon of a person is shown looking at the surface. The word 'Fulfilled' is written next to the diagram.</div> Fulfilled

Surface properties	Test standard	Requirements	Test result
Behaviour in dry heat	DIN 68861/T7	Stress group min. 7 D	No change at 70 °C
Behaviour in moist heat	DIN 68861/T8	Stress group min. 8 B	No change at 70 °C
Behaviour in water vapour	DIN 438-2	Level 5	
Scratch-resistance	DIN 68861/T4	Class 4B	

## 09 Installation guidelines

1. The raw laminate and preassembled 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.
6. Acclimatise preassembled elements prior to installation for at least 24 hours at room temperature (min. 18 °C). At delivery temperatures below 0 °C, acclimatise the elements for at least 48 hours on all sides.
7. No objects are to be rested on raw boards and preassembled elements as these could cause damage.
8. RAUVISIO brilliant is suitable for vertical applications indoors. Enquire and 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 microfibre 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.

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## 10 Care and usage instructions for the end user



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



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 pleasant to the touch, warm and has an excellent visual depth effect.

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

### Substances

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

#### Chemical resistance

Chemical resistance	Result
5	No visible change
4	Just noticeable change in gloss or colour
3	Slight change in gloss or colour; 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

### RAUVISIO brilliant SR matt

Substances	D	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
Blackcurrant juice	16 h	5
Evaporated milk	16 h	5
Water	16 h	5
Petrol	16 h	5
Acetone	10 s	5
Ethyl-butylacetate	10 s	5
Butter	16 h	5
Olive oil	16 h	5
Mustard	16 h	4
Onion	16 h	5
Disinfectants	16 h	5
Cleaning agent	16 h	5
Cleaning solution	16 h	5



No scouring or alcoholic cleaning agents must be used for cleaning, there is a risk that these will attack and damage the surface. Heavy dirt must be removed with a soft cloth (microfibre cloth) and soapy water;



Sealing should be avoided in RAUVISIO brilliant SR matt as an uneven application can result in a non-homogeneous appearance.

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We're never far away.  
Exactly where is shown at  
**[www.rehau.com/locations](http://www.rehau.com/locations)**

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Our verbal and written advice with regard to usage is based on years of experience and standardised assumptions and is provided to the best of our knowledge. The intended use of REHAU products is described comprehensively in the technical product information.

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