2 RAUVISIO CRYSTAL – THE GLASS LAMINATE

2.1 Product description

Whether in the kitchen, in the bathroom or in the living room, glass is widely used nowadays in furniture design. Especially for furniture fronts, glass is a popular material due to its high-quality appearance and feel. However, this also involves a certain amount of production work.
The product RAUVISIO crystal combines the high-quality appearance of glass with the positive properties of a polymer material. REHAU thus offers maximum flexibility for the production of front, backsplash or side wall solutions with a visual glass effect:

Fig. 2-1 RAUVISIO crystal for surfaces with a glass visual effect

RAUVISIO crystal is designed for vertical indoor use. For a horizontal application, clearance is required on your own authority for the specific application or consultation with REHAU's Applications Engineering Department.

RAUVISIO crystal has the following advantages:
- Non-porous, hygienic surface
- Scratch and abrasion resistant
- Resistant to breakage
- Low weight
- Machinable with woodworking tools
- Maximum flexibility in processing
- Production plant monitoring, TÜV certification for RAUVISIO crystal complete

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The guarantee of AMK conformity by REHAU can be provided only if the pressed boards have been purchased from REHAU. When processing individual laminates, i.e. self-performance of adhesion on the customer's own authority, the laminator's actions are his own responsibility (in consultation with the adhesive and board manufacturer).

2.2 Product structure of RAUVISIO crystal

RAUVISIO crystal is a laminated material consisting of the individual components shown below. The properties of the individual materials as well as proper application are decisive for the overall quality of furniture components with RAUVISIO crystal.

Fig. 2-2 RAUVISIO crystal composite with RAUKANTEX visions pro edgeband

Layer	Material/thickness	Description
Protective foil	Polyethylene protective foil (PE)	The visible side of the glass laminate is covered with a PE protective foil, which provides optimum surface protection during transport, processing and installation and must only be removed after installation.
Glass laminate	Material thickness 2.0 mm	
	Scratch-resistant HardCoat finish	Increase in the chemical resistance, abrasion resistance and scratch resistance, achievement of a reflective, high-gloss or matt, satin-finished glass visual effect
	1.6 mm: Transparent PMMA layer 0.4 mm: Colouring polymer layer	Depth effect, glass look Colour effect
Surface adhesive	PU surface adhesive	Ensures a secure adhesion to the substrate material Independently tested adhesive systems are used for the application concerned in combination with the respective components.
Substrate material	The material and thickness are matched to the respective application	Independently tested substrates and thicknesses are used in order to be able to ensure permanently consistent quality in the respective application.
Balancing sheet	Material thickness 2.0 mm design match to the surface & edgeband	Colour-coordinated balancing sheet, which – on account of its properties – in varying climatic conditions avoids warpage of the whole component outside of the customary tolerances of the wooden board materials industry (one-sided warming of the component must be avoided).

2.3 Individual components

All RAUVISIO crystal components can be ordered individually:

Laminate (high-gloss/matt)

RAUVISIO crystal is a 2 mm thick polymer glass laminate. Thanks to the combination of materials, RAUVISIO crystal creates a real-glass visual effect with outstanding adhesion to the substrate. The laminate is available in high-gloss and matt versions.

Fig. 2-3 Glass laminate RAUVISIO crystal in the high-gloss and matt versions

Balancing sheet (embossed)

For the surface–wooden substrate system solution a technically coordinated balancing sheet has been developed, which is ideally designed on the basis of the technical properties of the sandwich structure. Thanks to the 2.0 mm thickness of the balancing sheet, warping from heat, cold and fluctuating humidity is optimally minimized. The functionality of the balancing sheet is based on the coordinated material properties, in particular with regard to thermal expansion and the forces generated by it.

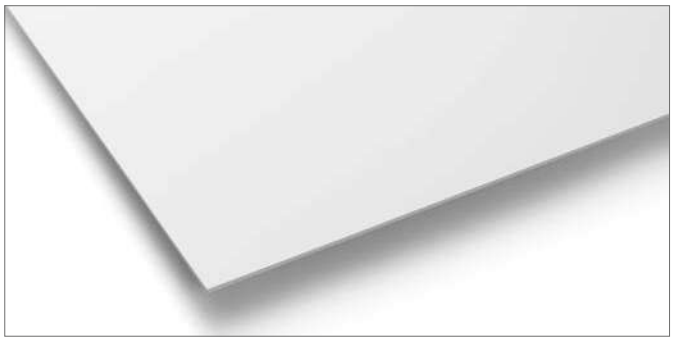

Fig. 2-4 Balancing sheet RAUVISIO crystal in the colour bianco

Edgeband collection

For RAUVISIO crystal, REHAU offers two perfectly coordinated edgeband designs. Thanks to the top transparent leg, RAUKANTEX visions pro in the duo design look creates the visual effect of a fine glass plate. RAUKANTEX color pure/pro, available with a high-gloss or matt finish, creates the glass visual effect through the application of a 45° chamfer. All edgebands are also available as the zero-joint edgeband RAUKANTEX pro.

Fig. 2-5 RAUVISIO crystal edgeband collection in the colour bianco

2.4 RAUVISIO crystal composite pressed board

In addition to the individual product components, the right processing parameters are key to ensuring the permanent high quality of the system component. To ensure the quality of the pressed board, REHAU offers the system component consisting of the surface, substrate and balancing sheet as a pressed board in large format (1,300 x 2,800 mm).

Fig. 2-6 RAUVISIO crystal composite pressed board in the colour bianco

The pressing of the individual components is performed by authorized REHAU fabricators. The prerequisite for this is the checking and fulfilling of the defined quality requirements. These are monitored by TÜV Rheinland in Germany.

2.5 The finished component RAUVISIO crystal complete

The REHAU surface configurator (www.rehau.com/boards; for US: www.rehau.allmoxy.com) can be used to have individually preassembled one-off fronts made in zero-joint quality from the RAUVISIO crystal components and matching edgebands.

Fig. 2-7 Finished component RAUVISIO crystal complete in the colour bianco

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