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RAUKANTEX

Technical delivery specification

1 Scope

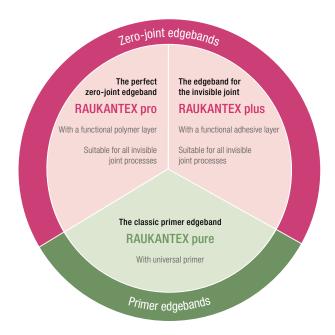
This technical delivery specification forms part of the contract and applies to RAUKANTEX edgebands.

It defines and limits the range of REHAU's services.

The material and product characteristics described in the following relate to the product as supplied. This condition has been documented by means of appropriate retain samples.

2 Area of use

RAUKANTEX edgebands are used to cover the cut edges of chipboards in the furniture industry.



RAUKANTEX pure

Edgebands with universal adhesion promoter for all adhesive systems that are customary in the market.

RAUKANTEX plus

Edgebands with a pigmented, adhesive-based functional layer. The glue properties can be compared to traditional bonding in terms of post processing.

RAUKANTEX pro

Edgebands with polymer functional layer meeting the highest standards. The hardness and colour of the functional layer are matched to the board edge.

3 Dimensions and tolerances

The standard tolerances for RAUKANTEX edgebands can be obtained from your contact person on request or you can find them on the internet.

4 General material properties

4.1 Edgeband materials

	RAU-PP color, decor and natura	RAU-PP designo	RAU-ABS color, decor and natura	RAU-ABS basic edge	RAU-PMMA color, decor
Shore hardness D DIN EN ISO 7619-1	75 ± 3	75 ± 3	70 ± 4		80 ± 3
Vicat softening temperature ISO 306, method B/50	approx. 100°C	approx. 100°C	approx. 90°C		approx. 80°C
Density as per EN ISO 1183				approx. 0.6 g/cm ³	
Ball indentation hardness DIN EN ISO 2039, part 1					$\geq 80 \text{ N/mm}^2$
Light resistance specified by EN ISO 4892-2 Process B Assessment according to grey scale ISO 105 -A02	≥ level 6	≥ level 6	≥ level 6		≥ level 6
Reshrinkage 3 mm edgeband 1 h at 110°C in hot cabinet, unrestrained	≤ 0.2 %	≤ 0.2 %			
Reshrinkage \geq 1.7 mm edgeband 1 h at 90°C in hot cabinet, unrestrained			≤ 1.7 %	≤ 0.3 %	≤ 1.0 % for edgebands ≥ 1.3 mm
Reshrinkage \leq 1.5 mm edgeband 1 h at 60°C in hot cabinet			≤ 0.3 %		
Water vapour resistance following DIN EN 438-2 item 14		level 5			

	RAU-PVC color, decor and natura	RAU-PVC soft	RAU-PVC 1195 floor	RAU-PVC 1293 floor	RAU-PVC 1699 floor	RAU-PET magic 1	RAU-PP/SRT soft
Shore hardness D or A DIN EN ISO 7619-1	79 ± 4 (D)	59 to 75 (A) as specified in formulation			75 ± 4 (D)		70 to 90 (A) as specified in formulation
Vicat softening temperature ISO 306, method B/50	approx. 67°C		approx. 73°C	approx. 75°C	approx. 65°C	approx. 76°C with aluminium insert	
Tensile strength DIN EN ISO 527-2			\geq 30 N/mm ²				
Elongation at break DIN EN ISO 527-2			0-5%				
Surface resistance, measurement with special electrode at 10 V			5x10 ⁴ < R < 5x10 ⁶ Ohm	<5x10 ¹¹ Ohm			
Volume resistance (related to 0.8 mm edgeband thickness) 100 mm edgeband on tin underlay Mount 50 mm brass electrode, at 10 V			5x10 ⁴ < R < 5x10 ⁶ Ohm				
Light resistance specified by EN ISO 4892-2 Process B Assessment according to grey scale ISO 105-A02	≥ level 6	≥ level 6		≥ level 6		≥ level 6	≥ level 6
Reshrinkage ≥ 1.7 mm edgeband 1 h at 90°C in hot cabinet	≤ 1.7 %					< 0.3 %	
Reshrinkage ≤ 1.5 mm edgeband 1 h at 60°C in hot cabinet	≤ 0.3 %		≤ 0.3 %	< 0.3 %	≤ 0.3 %	< 0.1 %	
Fire behaviour DIN 4102 worksheet 4	self- extinguishing	self- extinguishing	self- extinguishing	self- extinguishing	extinguishes after the flame has been withdrawn		

4.2 Functional layer materials

	RAUKANTEX pro	RAUKANTEX pro OMR	RAUKANTEX plus
Shore hardness D or A DIN EN ISO 7619-1	58 ± 3 (D)	$60 \pm 3 (D)$	approx. 87 (A) ≈ approx. 12 (D)
Melting point (DSC) DIN EN ISO 11 357-1 (heating rate 10 K/ min.)	150 ± 15°C	120 ± 10°C	approx. 125°C
Density according to ISO 1183	0.85-0.93 g/cm ³	0.95-1.10 g/cm ³	approx. 0.9 g/cm ³
Tensile strength to ISO 527	> 14 Mpa	> 14 Mpa	approx. 2.9 Mpa

4.3 Gloss level

The gloss level is an important product feature for surfaces, achieved using UV lacquers.

Depending on the surface quality and perspective, light is reflected differently, meaning the surface appears more or less glossy — what is known as the "shine effect".

REHAU measures the gloss level at an angle of 60 degrees in accordance with DIN 67530, generally on smooth surfaces. In exceptional cases the gloss level can also be measured directly on an embossed surface, but then the gloss level measured does not equate to the actual gloss level.

Tolerances for lacquered edgebands:

Gloss level	Tolerance in gloss units
6 to 100	± 3

Special lacquers can have a different tolerance. Special tolerances upon request.

Tolerances for unlacquered edgebands:

The tolerance range for unlacquered edgebands is considerably larger. This concerns what is known as machine gloss, which empirically speaking lies between 0-40 gloss units, depending on which production technique (calender/extrusion), which surface design (embossed/unembossed) or which edgeband material (ABS/PP/PPMA) is used.

5 Special notes for RAUKANTEX edgebands

5.1 ABS edgebands

It is recommended to clean edgebands made from RAU-ABS with special plastic cleaners.

Substances with a high solvent or alcohol content should not be used for cleaning, as this might cause the edgeband material to become brittle or dissolve.

If strong pressure is applied while rubbing, intensive or dark colours may come off at the routed radius. For further information on processing and cleaning, please refer to the corresponding sales documentation.

5.2 Transparent PET and PMMA edgebands

When using release or cleaning agents, check carefully that they do not contain alcohol and solvents, as these must not come into contact with transparent edgeband materials.

This especially applies to antistatic agents and/or coolants. Cracks may form if agents containing alcohol or solvents are used, even after an extended period of time.

For further information, please refer to the corresponding sales documentation.

Tips on cleaning and reducing stress cracking:

Essentially, all transparent hard plastics are susceptible to stress cracking if they are over stretched and are cleaned with even mildly aggressive cleaning agents. Depending on the extent to which the material is over stretched, stress cracking can be seen as a deep material crack, as a hairline crack, or as cloudiness on the transparent material. For this reason, it is crucial that the edgeband is applied around the external radius of the board free from tension. This is achieved by sufficiently heating the edgeband material with UV lamps or hot air.

5.3 Edgebands with protective foils

The print on the protective foils of edgebands is only partially resistant to solvents.

The protective film must be removed from the edgeband directly after final assembly.

The standard protective film (transparent print) is not UV resistant (e.g. for painting). We recommend our UV-resistant black and white protective film for special applications of this kind.

5.4 RAUKANTEX pro and plus in PVC

RAUKANTEX pro or plus can also be processed in PVC material using the hot air method.



Processing RAUKANTEX pro or plus in PVC using laser technology is not approved, as harmful gases may form.

6 RAUKANTEX classification

6.1 RAUKANTEX pure (primer edgebands)

RAUKANTEX pure edgebands are designed for processing on standard edgebanding machines using the hot-melt adhesive process. For this purpose, the edgebands are coated on the back with a universal primer suitable for use with hot-melt adhesives.

The customer should check the suitability of all adhesives used by means of processing trials.

The processing instructions of the adhesive supplier should be observed.

6.2 RAUKANTEX plus/pro (zero-joint edgebands)

RAUKANTEX plus/pro zero-joint edgebands are designed for processing with edgebanding machines using the ${\rm CO_2}$ or diode laser, hot air, or NIR method. For this purpose, the edgebands are provided with a functional layer. The suitability of the RAUKANTEX zero-joint edgebands must be determined by the customer by means of processing trials.

The functional layer of RAUKANTEX zero-joint edgebands is unlacquered and therefore classified as machine gloss surface quality. This can vary with regard to gloss level and surface smoothness as a result of manufacturing dependencies. This has no effect whatsoever on the function and melting behaviour of the functional layer in processing. REHAU recommends use of extraction when processing the edgeband, as melting the functional layer materials can cause harmful substances to form. The extracted air can be released into the environment if the technical instruction on air quality control is complied with — check the local regulations in each case. If cleaned air is returned, dust particles and gaseous components must be filtered in compliance with the machine and filter manufacturer's specifications.

6.3 RAUKANTEX edgeband range

6.3.1 RAUKANTEX color and decor

RAUKANTEX color and decor edgebands are intended for use with furniture components without special water vapour resistance requirements.

6.3.2 RAUKANTEX designo

RAUKANTEX designo edgebands made of RAU-PP are intended for use with furniture components with special water vapour resistance requirements.

6.3.3 RAUKANTEX magic 1

RAUKANTEX magic 1 edgebands made of RAU-PET with aluminium insert are characterized by a realistic metal effect.

6.3.4 RAUKANTEX magic 2

RAUKANTEX edgebands with an aluminium or stainless steel surface. The aluminium or stainless steel surface is provided with UV protection lacquer and a protective foil.

6.3.5 RAUKANTEX magic 3

RAUKANTEX edgebands made of RAU-PP have a polymeric aluminium or chromium surface and a protective film. They are intended for use with furniture components without special water vapour resistance requirements.

6.3.6 RAUKANTEX soft

RAUKANTEX soft edgebands with a seal/buffer element are intended for use as a dust seal or compression seal.

6.3.7 RAUKANTEX basic edge

RAUKANTEX basic edge made of foamed RAU-ABS is used as a supporting edgeband in lightweight boards, or as a bottom edge of low-density chipboards for thin edge fabrication. Its surface has a light structure and is basically homogeneous.

6.3.8 RAUKANTEX prime edge (translucent design)

RAUKANTEX prime edges made of RAU-ABS must be coated with opaque paint, as their colour fastness to artificial light is limited. Lacquers made from PUR (or DD lacquer) are particularly suitable for this. The selected lacquer systems must always be agreed with the manufacturer and must be confirmed via processing trials. There are no particular edgeband surface requirements in terms of color, homogeneity or gloss.

Store the edgebands away from light.

6.3.9 RAUKANTEX floor

RAUKANTEX edgebands made of electrically conductive RAU-PVC 1195 (thickness ≥ 0.5 mm) with adhesion promoter are self-extinguishing and are used to discharge static electricity on raised floor elements

Please note that, due to the ingredients used, colour may come off if it is not handled correctly.

The formulation of RAUKANTEX edgebands made of RAU-PVC 1699 with adhesion promoter reduces creaking noises and makes them self-extinguishing. These edgebands are used to cover the cut edges of raised floor elements.

RAUKANTEX edgebands made of RAU-PVC 1293 with adhesion promoter have a defined brittleness and are self-extinguishing. They are used to cover the cut edges of raised floor elements made of mineral material.

If it is printed with lettering, the latter has only a limited resistance to abrasion and solvents.

7 Processing instructions

The particular processing parameters required depend on the glues and additives used, environmental conditions and the machines and tools used. The customer must ensure edgeband adhesion after fabrication using suitable methods and tests.

The edgebands to be processed must be conditioned at normal room temperature (approx. 18°C to 25°C). It is recommended to open the packaging.

You will find more processing instructions in the sales literature and in the Technical Information.

8 Surface design

Surfaces are specified in accordance with the REHAU embossing and gloss level collection.

Deviations caused by processing or material should not impact on the appearance when viewed from 0.5 m.

9 Storage

In proper conditions, RAUKANTEX edgebands can be stored for at least 12 months. For edgebands older than 12 months, however, a processing trial should always be carried out prior to serial production. Recommended storage conditions:

- room temperature (approx. 18°C to 25°C)
- dry
- clean
- no solvent vapours
- protected from light

RAUKANTEX soft PVC must not be stored longer than 6 months after delivery.

RAUKANTEX plus (with hot melt adhesive coat on the back) must not be stored longer than 6 months after delivery. The storage temperature must not exceed 25°C to prevent the winding layers from sticking together.

10 Delivery format and packaging

Coil format and packaging of RAUKANTEX edgebands is carried out as specified in the order, for the standard stock range according to standard specifications.

A length tolerance of \pm % (at room temperature of approx. 18-25 °C) applies for production orders.

A length tolerance of \pm /- 5 % (at a room temperature of approx. 18-25 °C) applies for zero-joint edgebands PRO from the standard stock range due production-technical dependencies.

11 Function

It is the responsibility of the customer to establish the suitability of our product for the specific application as part of their own meaningful functional tests for series delivery.

12 Modifications

As the responsible supplier, REHAU reserves the right to make modifications or variations for the purpose of improvement and further development of the described products; changes to the specifications agreed herein being excluded. The latest edition of the Technical Delivery Specifications applies in this case.

13 Compliance with standards

Changes to requirements resulting from modification of the standards listed in this Technical Delivery Specification must be reported and requested by the customer. If no other agreement is in place, the status of standards valid when this TDS was issued shall apply.

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