

KANTENnews

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Trend décors: Edgebands in the limelight

Embossings: Décors to be experienced

Thin edgeband stock programme: New range, new packaging

Instant Edging Programme: Expanded to include new trends

Digital printing technology: Photo-realistic motifs on edges

Fusion-Edge: Invisible joint now a reality

Folding-Edge: Edges made to fold

Lightning-Edge: Döllken lights up the edge

DÖLLKEN

A SURTECO COMPANY



Flower power on the edge - creating an unusual eye-catcher.



Graphic décors in jazzy colours remind of the retro-look of the seventies.

In today's furniture design, the edge usually matches the surface, thereby obscuring its detail. With Döllken's new creative edgeband designs, the edge is emancipated from the surface. The unusual patterns and colours lend the edge its own individuality, rendering it a special design element.

Flower Power

Floral designs are in evidence everywhere – on wall-paper, materials, paper and glass. Döllken took inspiration and finished the edgebands with a stylised floral design. Classic colour combinations such as black flowers on a white background or trendy variations like lilac with golden twines create a variety of themes. The 3D-edgeband design with metallic print on a glass-green background is perfect for a mix of materials in glass and metal. Applying the décor to the back of the transparent edgeband creates depth and an effect as if behind glass.

TREND DÉCORS: *Edgeband in the limelight*



Retro-look

Graphic designs, appearing sometimes playful, sometimes stern, are another trend. Döllken's geometric realisations, bathed in jazzy colours, are reminiscent of the retro-look of the seventies. Arrangements of circles in radiant and contrasting colours, such as yellow, orange and blue or in muted brown and olive tones, add variety to a purist's living ambience. The edge thus becomes a playful element in furniture design. Döllken regards itself as the initiator, presenting its customers with ideas and inspiration to jointly create individual décors, rendering the edge an eye-catcher. Imagination knows (almost) no bounds.

Solid core look

Thin tables and cover boards are currently in fashion. Solid core boards with exposed narrow surfaces, increasingly without edging are often used, but they are relatively expensive. Döllken has developed a cost-effective alternative here, with a solid core board look, but with conventional chipboard underneath. This effect is created by an edgeband, which accurately simulates in terms of colour, gloss level and texture a cut, finished and oiled solid core board. The 3D 2-in-1 edgeband offers a further design alternative. It imitates a solid core board top.

Soft-gold

Contrasting with previously popular cool metallic looks such as aluminium, stainless steel and silver, new warm shades of gold are increasingly found in the consumer goods market. They lend a luxurious look to cars, sport items and living accessories. But the new variants of gold are not bright, yellow and shiny – they are more on the matt side, with shades of brown-beige. Döllken has embraced the trend towards soft-gold and designed it into the edgebands. Furniture is upgraded quickly and easily, using the golden contrast edgeband.

d é c o r s

Solid core board looks are achieved by applying a suitable edgeband.



Soft-gold lends warmth and high quality to furniture.



editorial

Fantastic world of surfaces

For the first time, we are represented at this year's Interzum in Cologne under the Surteco umbrella, together with our sister companies. Surteco SE is the leading internationally active specialist for surface technology. Within the company, Döllken with its thermoplastic edgebands represents the centre of the Plastics strategic business unit. In this way we can together offer our clients the full world of surfaces and edgebands. A visit to Interzum will convince you of this. At the fair we will, for the first time, demonstrate the new possibilities for digitally printed edgebands: photo-realistic motifs, perfect bonding of décor to board, super-quick matches and small production quantities. Over and above this, you will be surprised by other innovations as well, such as the market-ready further development of the Fusion-Edge, the creative contrast décors in retro- and floral design, the new variety of the thin edgeband stock programme and so much more.

Looking forward to meeting you!



Your Döllken team

Apart from colour and décor, the interaction between the surface properties of the edge and the panel are becoming increasingly prominent in furniture design. In this respect, embossing plays a significant role in shaping the visual and haptic appearance of the edgeband. They impart to the edgeband a three-dimensional character, experienced both visually and by touch.

Striking embossings in particular give rise to the urge to feel, touch and understand the surface. They render visually challenging light and shadow effects through their relief. Matt-gloss effects furthermore enhance this feature and lend even more life, especially to wooden décors.

Unobtrusive structures, which are more universally applicable and remain in the background both visually and haptically, remain on offer.

EMBOSSINGS: *Décors to be experienced*

Attractive visual and haptic interaction with the new "Crushed stone" embossing.



Lino

Adaptation of textile structures to surfaces and edges is up and coming. With their grey, beige and pastel colours, they remind one of the seventies retro-look. These textile décors are increasingly used for furniture carcasses and in drawers, lending new significance to the interior of cupboards. Döllken's new "Lino" embossing highlights the material character of these textile décors.

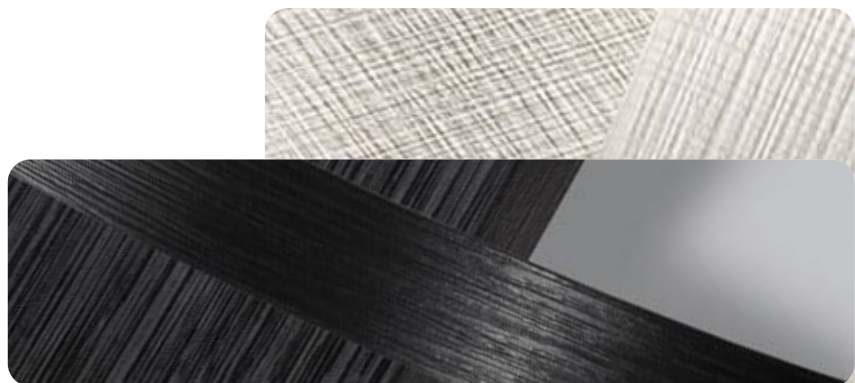
It matches not only the current "Penelope" collection of the Italian board manufacturer Cleaf perfectly, but also others such as Resopal.

Macroline

Döllken's "Macroline" is a highly universal embossing. Plain colours are fashionably interpreted by their fine, irregularly grained, brushed surface. They lend more depth and 3D character to fine-grained timber décor. Streaked fantasy décors are rendered more expressive. "Macroline" corresponds with the current "Linea" and "Smart" structures of Thermopal and Cleaf respectively.

Crushed Stone

Döllken's new "Crushed Stone" embossing creates an interaction of matt and glossy structures. Its distinctly grainy surface lends a more realistic and natural embossing to stone products. Plain colours are tangibly enlivened and rendered visually more exciting through the iridescent effect. The embossing is ideally matched to the "Crystal Stone" surface structure of Duopal.



The fine, irregularly grained "Macroline" is universally applicable.



With the "Lino" embossing, Döllken has implemented the latest Italian trend to textile structures on the narrow surfaces.

The new thin edgeband stock programme comprises more than 100 colours and décors.



On the back of a higher demand for quality, a clear trend itowards the use of thin thermoplastic edgebands, instead of melamine edgebands, is developing even for furniture carcasses. Apart from the variety of colours and décors, the demand is also for small order quantities and quick delivery times. Accordingly, Döllken has adapted its thin edgeband stock programme to suit market requirements – fully re-designing and re-structuring the range.

THIN EDGEBAND STOCK PROGRAMME: *New diversity, newly styled*

More than 100 colours and décors

The stock programme now comprises far more than 100 different colours and décors. The selection matches the internationally most popular variants of e.g. Egger, Pfleiderer, Krono, Kaindl, Frati, Abet, Arpa, Sonae, Starwood and Kastamonu.

The aligning of the thin edgeband colours to existing finishes in the Instant Edging Programme is another highly advantageous innovation. Using the Döllken “Edgeband-Finder” at www.doellken-kv.com, you can find thin or thick edgebands to match your board, quickly and easily. This allows different dimensions of the same edgeband to be applied to a furniture item.

Due to the global scope of the programme, the ABS high-tech plastic was selected as the thin edgeband material, since its ecological impact is positive. The high-grade ABS edgebands meet the high Döllken quality standards with respect to accurate print images, natural embossings and varying gloss levels, from matt to high gloss, even here with thin materials. ABS also distinguishes itself, compared to PVC by means of good tensile strength and higher heat stability.

Relatively small purchase quantities

The new thin edgeband stock programme concept is particularly advantageous with respect to quick availability of quantities. Each colour is available ex-stock from 1000 meters in 22 x 0.4 mm. The packaging has been changed to 5 x 200 metre rolls, which utilises the carton more efficiently, reducing the transport volume and thereby the transport costs. Subsequent handling of smaller rolls is also simplified – to the advantage of the user. The minimum purchasing quantity is one pallet = 20 000 meters, i.e. an assortment of up to 20 colours and décors can be bundled on one pallet.

In addition to the stock programme, complete décor-matched mother rolls of 400 meters = 120 sq.m. may be purchased for cutting up. Here the minimum purchase quantity is four rolls. This means increased flexibility with regard to various dimensions.

thin edgeband

Perfect matches
ex-stock.

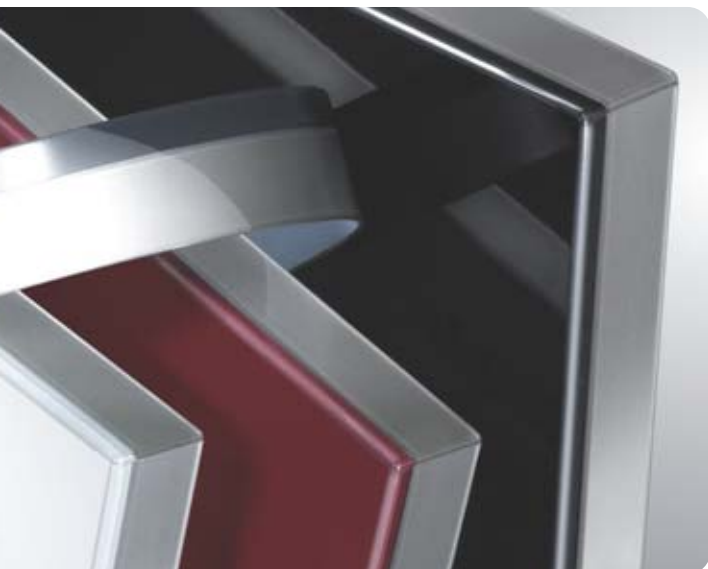


INSTANT EDGING PROGRAMME: *Expanded to cover new trends*

Döllken's Instant Edging Programme has ranked among the most successful stock programmes for plastic edging for many years. Another contributory factor, apart from the excellent match list to currently over 10 000 boards from more than 50 leading international board manufacturers, is the quick and reliable delivery service – starting from as little as a single roll.

The greatest success factor is the constant expansion of the stock range to meet requirements arising due to current trends such as 3D glass effects, 3D Premium-Natural, high gloss and lightweight construction projects.

3D Premium-Gloss 2-in-1 simulates a glass panel top.



3D Premium-Gloss 2-in-1

Glass frequently is a component of today's mix of materials. It creates lightness but is not actually lightweight. It signals value, but only if it is not scratched. It looks expensive, which it unfortunately is. Döllken's new 3D 2-in-1 edgeband is a clever alternative to genuine glass. It has the visual advantages of glass, but not its disadvantages in terms of processing, transportation and use.

It consists of two colours or décors running in parallel, like e.g. a stainless steel tone combined with a pastel green, typical for glass. By applying the décor on the back of the transparent acrylic carrier, a 3D depth effect is created, as if behind glass. When this edgeband is applied to a high-gloss pastel green board, an amazing effect is created: It appears as if a glass pane has been placed on top, since the light reflects and breaks in the edgeband as it would in actual glass.

The effect is particularly realistic in the Premium version. In this version, the edgeband is supplied already with high-gloss surface lacquer. This means no subsequent polishing is required. In keeping with what is available in lacquered glass, the Instant Edging Programme offers the eleven trend colours such as black, red, white, grey and lilac combined with the stainless steel look, in a Premium-Gloss version. From as little as a single roll of 150 m, the 3D 2-in-1 edgeband in 23 x 1.3 mm can be ordered – for quick implementation of the glass effect.

In addition, the 3D 2-in-1 edgeband can also be supplied in other colour and décor combinations and dimensions, at short notice against special order. Even extreme widths such as 63 mm can be supplied.



The Instant Edging Programme offers edgebands for more than 10 000 boards.

But not only can the appearance of glass be created convincingly by using the 3D 2-in-1 edgeband – solid core or veneered boards can also be simulated.

3D Premium-Natural

The 3D Premium-Natural edgeband is another Döllken innovation. In cooperation with Formica, décor-matching 3D-edgebands were introduced to suit their new natural board collection. The full range of 15 décors, measuring 23 x 1 mm and supplied in 150 m rolls, is already available as 3D Premium-Natural in the Instant Edging Programme. A further 20 edgebands were included in addition, matching the most popular Egger décors.

Together, the high-grade 3D-edgeband and the Formica laminate form a perfect combination all round - hardly distinguishable from genuine wood veneer. The matt varnish and the natural embossing lend a natural-looking velvety wooden character to the structure.

High-gloss edgebands

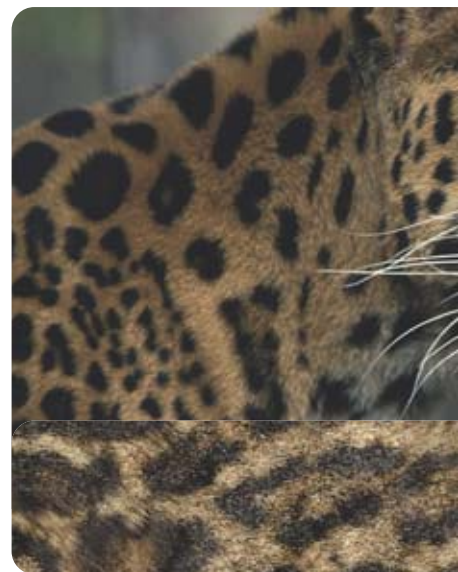
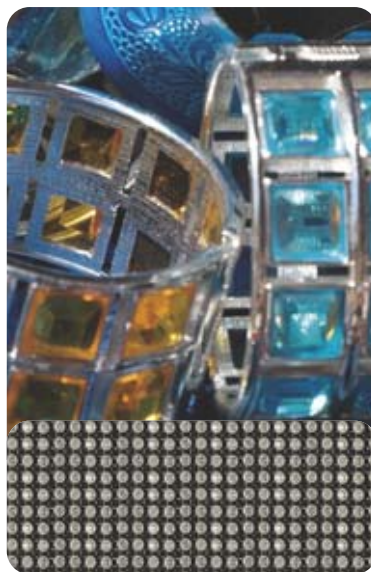
More than 60 high-gloss colours and décors are now available ex-stock. As such, Döllken has the most comprehensive high-gloss programme for thermoplastic edgebands. The high-gloss assortment ranges from standard colours such as white, grey and black to blue and red tones to jazzy trend colours like apple green, lilac, pink and yellow, to name but a few. Apart from the rainbow colours there are of course the classical wood décors, right up to exotics such as Makassar and Olive-wood. Conventional metallic décors such as the aluminium look round off the high-gloss programme. The Instant Edging Programme thereby offers woodworkers a vast selection of popular colours and décors in elegant mirror gloss look, achieved through a high-grade lacquered finish. Edgebands can therefore be offered to suit several high-gloss board lines such as those from Thermopal, Formica, Wodego, Funder-Max and Senosan.

Lightweight construction

The expansion of the match list to cover the current Egger-Euro-light line constitutes a further useful addition. The 20 relevant décor-matching edgebands in both 45 x 2 and 54 x 2 mm are immediately available in individual rolls.

These as well as other edgebands in the Instant Edging Programme can be found fast and easily using the online "Edgeband-Finder" search engine at www.doellken-kv.com. All search results are clearly listed, with preview pictures.

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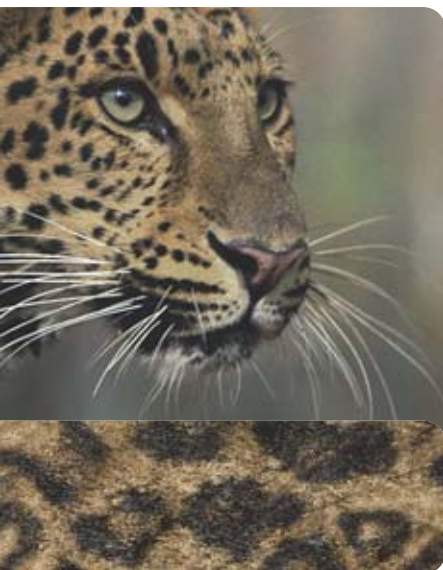
Döllken sets a new highlight in shaping the surfaces of thermo-plastic edgebands with the introduction of Digital Printing. Digital printing technology is prominent in many areas. A host of new colour possibilities can now be applied to edgebands.

Infinite diversity of décor

Using technology co-developed by Döllken engineers, it is today possible to apply photo-realistic themes to edgebands for the first time. A variety of unicoloured edgebands have also been successfully printed on, using the complete colour spectrum. Conventional systems can only print on white, with unsatisfactory results for the endusers. The customer can have more influence for the décor design and print rollers are no longer required for such fantasy, stone, wood or other décors. The contrast edgebands shown are suited for shopfitting or individual furniture items. But edgebands can also be developed to perfectly recreate the patterns on the board.

DIGITAL PRINTING TECHNOLOGY: *Photo-realistic motifs on edgebands*





Smallest batch sizes produced economically

This technology is predestined for production of very small batch sizes, not previously possible to produce. This now belongs to the past and, by applying this innovative technology, Döllken can provide the designer or architect with the necessary freedom demanded by modern design.

No metamerism

Another new development relates not only to the printing machine itself but also to the special colour formulations that are precisely matched to the surface papers in their pigmentation. This translates to no colour differences since there is no metameric effect. In this way, décor matching between edgeband and board is thus truly perfect. This quantum leap in digital printing technology, especially for thermoplastic edgebands, now permits risk-free transition from small batch sizes to large production lots. The production of design-oriented prototype furniture and later transition to series production is guaranteed. This is of great benefit to furniture development.

Colour design

This special printing technology enables Döllken to significantly accelerate colour matches. In addition to the production of small batches, this also offers high fidelity colour matching to the customer's samples.

The full advantage of digital printing technology will be available in the fourth quarter of 2009.





Perfect unity of edgeband and board completely seamless and without conventional hot melt adhesive coating.



In cooperation with Homag, the Fusion-Edge was extensively tested and optimised up to series production stage, using the laser welding procedure.



TECHNOLOGY
AWARD 2008
Döllken-Fusion-Edge:
WINNER OF THE
M TECHNOLOGY
AWARD 2008



DESIGNPREIS
2009
Döllken-Fusion-Edge:
NOMINATED
DESIGNPREIS
BRD 2009

FUSION-EDGE:

Invisible joint now a reality

The Fusion-Edge developed by Döllken for processing without glue or joints by means of laser application is almost ready for series production. The appearance of joints, which are an eyesore especially in high-gloss boards, will therefore soon be a thing of the past. This trail-blazing Döllken innovation has already been awarded the M Technology Award 2008 and is also nominated for the BRD Design Prize 2009.

It is revolutionary, considering the process uses no conventional hotmelt adhesive, but laser welding to create a seamless transition between edge and board. The Fusion-Edge consists of a top ABS, PP or 3D base layer (which corresponds to a conventional edge) and a very thin functional special polymer layer colour-matched to the base layer.

Cooperation with machine manufacturers

In close cooperation with machine manufacturer HOMAG, the Fusion-Edge was extensively tested over many months and optimised to be ready for the market. Döllken will present this further developed version at Interzum.

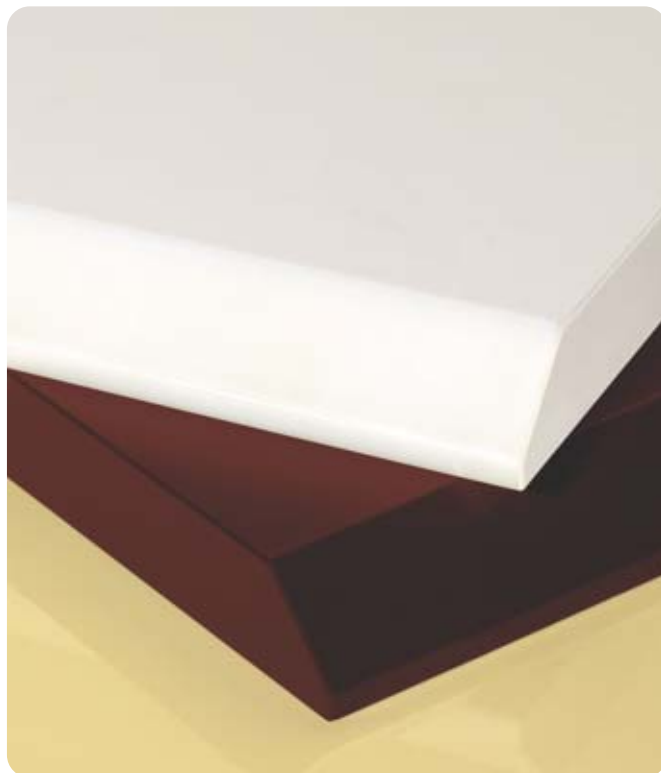
Thereafter, our project partner Homag will for the first time present a continuous machine for laser welding with the Fusion-Edge on the Ligna show. The conventional gluing assembly of the edgebander is replaced by a powerful laser. The laser welds the functional layer of the edgeband to the board to create a seamless joint - without any additional hot-melt adhesive.

The special thing about the new edgeband generation is therefore that it is edge and adhesive rolled into one. This does away with any matching of edge, adhesive type and board. This again translates to increased production assurance and productivity together with better visual quality.

Bevelled table tops with Folding-Edge,
visually light and pleasant to the touch.



The Folding-Edge is excellently
suited for rebated faces without handles.



To date, only paper edgebands or individually extruded profiles could be used for the edging of bevelled surfaces. Because Döllken made them foldable, it is now possible to use high-quality plastic edgeband in the form of the Folding-Edge.

Visual lightness

Visual lightness is currently of great significance in furniture design. Thin table and cover boards as well as door fronts without handles were displayed in increased numbers at the latest furniture fairs. To maintain stability the boards cannot be too thin, however, otherwise expensive solid core boards would have to be used. In order to continue using chipboard, but simultaneously achieving the lightweight look, the chipboard is bevelled downward.

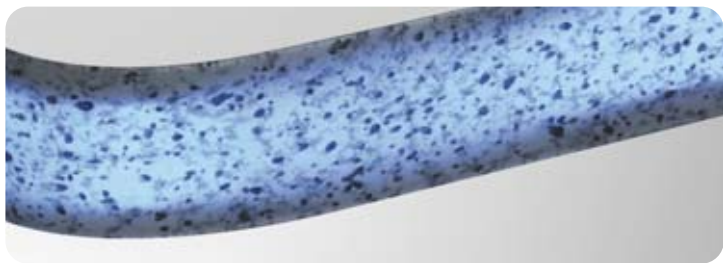
FOLDING-EDGE: *Edges made to fold*

Various folding options

The Folding-Edge is ideally suited to cover the exposed narrow surfaces attractively and offers impact-resistance. It comes with a V-groove at the back. This may be positioned anywhere and folded inward or outward as required. Various angles and looks can thus be achieved. Door fronts without handles in the kitchen are another Folding-Edge application, for instance. The upper bevelled side is edged with the Folding-Edge to create a recess for gripping and opening the door. The edge is rendered grip-friendly by creating a radius. The other three straight sides of the front door can also be closed using décor-matching plastic edgeband to create a uniform look all round.

The major disadvantage to date of profiles used for such folding applications is that they are extruded already folded and can thus be supplied only in straight lengths. The Folding-Edge developed by Döllken, on the other hand, can be applied on site, directly off the roll. This offers significant advantages in terms of handling and application.

f o l d i n g



Glowing 3D-edgebands with integrated electroluminescence.

Edgebands for the furniture industry are functional, durable and offer a modern design. In a technological project, Döllken's development team gave the edge a new function – edgebands with integrated lighting effect.

These glowing edgebands are based on the electroluminescence (EL) property. A layer of electroluminescent material is sandwiched between two electrically conducting layers, one of which must be translucent.

LIGHTNING-EDGE:

Döllken lights up the edge

lightning

Electroluminescence

When a voltage is applied, the middle layer is stimulated to emit light. Power consumption is minimal and heating of the light source practically non-existent. Electroluminescence-based illuminants are very economical and extremely durable – with a service life of approx. 10 000 hours. Following a research programme, Döllken incorporated this trendsetting lighting technology into an innovative lightweight design. As such, the cableways and connections could be successfully hidden in the cavity. The advantage of this EL lighting technology lies in the freedom of design, since the luminescent elements are highly flexible. Aside from the conventional straight application, BAZ technology can also be used. Different colours are also available, either constantly lit or flashing at various frequencies. This development concept is designed to open up new fields of application for users of Döllken 3D-edgebands.

The prototype furniture has a backlit electroluminescent 3D-edgeband. A counter with integrated lighting will be on show at the Interzum, as well as a display at the special show: Light-Innovation for interiors.

Kitchen, Office, Shopfitting...

Applications abound in the cabinet-making industry. This technology can be incorporated wherever ambience, light or safety is an issue.

In shopfitting, areas can be specially highlighted. In living room or kitchen areas, a homely ambience is created and in the office furniture sector the focus is on reception areas.



Example of an electroluminescent lightning-edge.

DÖLLKEN