

# SURTECO



Go green  
with perfect matching  
Döellken edgings

# 10 tips for choosing the perfect Edgebanding



## 1 DIN European Quality Norms:

All edgebanding should follow DIN European quality norms.

## 2 High UV-resistance DIN 53388:

Edgebanding manufacturer should add a UV protective component both inside the extruded material and on the topcoat in order to prevent color fading to improve the UV Resistance. Due to excellent color stability furniture maintain a higher quality for a longer period. A good UV-Resistance should be around 6 to 8 on the wool scale.

## 3 High abrasion and scratch resistance DIN 53456 and DIN53305:

Special printing technique should make it almost impossible to scratch away the printed surface.

## 4 Chemical resistance DIN 68861:

Resistant to all common household cleaning agents. Used on Laboratory furniture for many years.

## 5 Sharp quality printing and a more realistic finish:

Most customers who have experienced using edge-banding would know that the choice of the edges make their furniture more perfect. Special printing technique using in-house produced tools to make patterns and wood grain look absolute realistic. The manufacturer should be able to print with a great variety of colors and if compared to any other real Oak, real Beech, real Maple or real stone-décor, no great difference should be noticed. Print should look more realistic.

## 6 Structures and patterns:

The number of structures & patterns available should also help you to get the perfect matching to the laminate, particleboard or even a veneer. It should make the edge feel like real wood. During these times of fierce competition in the furniture market the edge might just make the difference.

## 7 Quality Raw Materials & Compounds: Health concerns

The secret recipe should have no compromise. Material properties should be controlled at each step & at the technical center of the manufacturing site. Many manufactures add fillers such as adding large % of CaCO<sub>3</sub>, carbon and use plasticizers that are harmful for human health to save on the more expensive plastic compounds ABS, PVC, PP and PMMA. These fillers might make the edge brittle, hard and cause trouble during the manufacturing process. The manufacturer should consequently know exactly how to produce quality edges and profiles without compromise. Edgebanding are part of our housing world and at several stage of our life, we are in contact with edgebanding. A perfect green edgebanding will prevent you against any health threat. Your manufacturer should be able to provide you green-guard certificate to provide you with a valid GreenGuard certificate and to prove the quality of the raw materials & compounds used.

## 8 Avoid Common manufacturing problems:

- *Glue Line (a common problem)*

*Moister can penetrate in to the board and cause problems. You will have to do extra 'touch up' work to cover the line.*

- *Breaking, chipping and 'stress' during application. 'Stress' is a white line at the routed part of the edge and indicates material property problems.*

- *A high tolerance Variation in thickness, width and horizontal curving causes many manufacturing problems. Edges not covering the board due to horizontal curving etc*

- *Scratches on the printed surface after processing is a common fault.*

- *Weak bonding due to tolerances and material properties and weak 'bad' primer.*

- *Waste: Cannot use the last 15 meters on the roll.*

- *Variation in color from batch to batch.*

- *Colors fade after standing in sunlight or hot climate.*

Using the right edging will help you to avoid all of the above manufacturing problems and guarantee satisfaction at all times. Always ask for edgings that are certified with DIN Test Standards.

## 9 Processing right edge-banding on your edge bander:

Another secret of manufacturer Edge band success is that the manufacturer should be working and developing every step of the manufacturing process together with the world leading machine manufacturers. Manufacturer should make sure that their edges work optimally with the latest state of the art edge bander. Straight fast lines as well as BAZ workcenters. Acrylic edgings, PVC, PP, ABS edges, Laser/fusion edge also comply with all the latest techniques.

## 10 Cost of material (Price):

Expensive means that you don't get what you pay for (extra value). Cheap means that the price is low but so is usually also the quality. When calculating the end cost when manufacturing a product with optimal quality standards, the manufacturer providing you the perfect edging will help you save Money. Rejects are very expensive; customer claims might ruin the Company. The right manufacturer will save you from mistakes that you cannot afford.



# Best in class

## Features and benefits

### Choice of edgeband material depends on the application or requirements in question

- Greenguard certification ⇨ ABS, PP, 3D/PMMA
- Chlorium-free materials ⇨ ABS, PP, 3D/PMMA
- Lab furniture ⇨ PVC, PP
- High heat resistance in proximity of ovens ⇨ ABS, PP, 3D/PMMA
- Extraordinary appearance / High quality ⇨ 3D/PMMA
- Price ⇨ ABS, PVC, PP
- Fusion edge for Laser / Plasma / Hot air / IR application ⇨ ABS, PP, 3D/PPMA
- Problem-free processing using simple machines ⇨ ABS, PVC
- One edgeband for as many requirements as possible ⇨ ABS

### Doellken standards follow DIN European quality norms

- *High UV-resistance, light fastness DIN 53388 (6-7 on the wools scale)*
- *High abrasion and scratch resistance DIN 53456, DIN53305*
- *Chemical resistance DIN 68861*
- *Indentation hardness DIN 53456*
- *Shore hardness DIN 53505/ ISO 868*
- *Linear thermal expansion coefficient DIN 52328*
- *Resistance to curving under heat DIN 53460/ ISO 306*



# The future: Fusion edgings



A seamless bond between edge and worktop – Fusion-Edge makes it possible. With an innovative furniture edge-band that requires no additional hot-melt adhesive, Döllken is offering a real alternative to conventional edge-band adhesion and so is creating a revolution in small surface area coatings. From the prevention of visible glue lines through the waterproof bonding of individual components to the optimization of the machining process, the visual, functional and economical benefits are diverse and have already won over many leading furniture manufacturers and suppliers as genuine fans of Fusion-Edge.



### Innovative technology for a permanent joint:

Once joined, the Fusion-Edge forms a fixed unit with all popular wooden materials. Four contemporary methods make this possible:

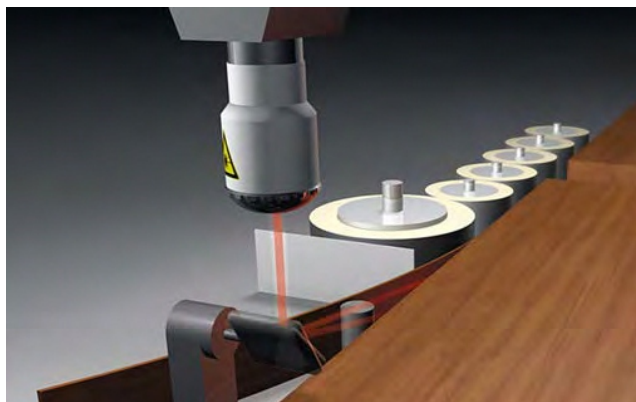
- With the laser joint method, a laser beam is formed into a line using optics when the Fusion-Edge nears the worktop. This melts the functional layer of the Fusion-Edge and it is pressed onto the edge of the board. This creates an invisible joint.
- Using plasma technology, the reverse side of the edge-band is melted by means of nozzles.
- Using the new hot-air technology, highly heated air melts the functional layer of the Fusion-Edge.
- NIR Technology.

### Economically a real winner:

With Fusion-Edge, the storage of individual materials (such as additional adhesive) is made redundant, significantly reducing logistical overheads, set-up times and maintenance breaks, as well as considerably reducing production costs and cleaning overheads.

This means the innovative furniture edge becomes a winner both visually and commercially:

- No visible joint.
- Excellent moisture resistance.
- Adds value to the work piece.
- No additional hot melt adhesive needed.
- Increases production assurance and productivity.





# Premium high gloss edgings & digital printing edgings

## Digital edgings:

### This is how individual edgeband design can be

For the past 40 years edgebands have fulfilled purely a functional purpose. Digital-Edge from Döllken has turned them into a genuine design element. Whether it be a company logo, lettering or creative graphical designs – it is possible for the first time to print individual designs onto thermoplastic edgebands.

### Revitalisation in store design

Thanks to Digital-Edge, furniture edgebands not only look good, they also offer another major benefit – when printed with a company logo or slogan for example, they turn any shop counter, table or piece of furniture into impressive advertising space. This is generating new momentum in shop fitting and commercial property design.

### This is how easy it is:

Once you have decided on an image, simply send us a file with the individual design. It will not take us long at all to then send you your very own personal edgeband.

### Pure inspiration

Those who have yet to come up with any ideas for a personally designed Digital Edge can find inspiration in Döllken's digital world of Design. Selected theme based edge motifs provide an idea of the vast array of possibilities and ensure that design dreams become a reality.

## Your benefits

- **Individual:** every desired motif can be realised
- **Effective advertising:** can be used as an innovative marketing tool, such as QR code or logo egde
- **Inspiring:** large selection of designs
- **Practical:** available worldwide from just one roll

Find inspiration on  
[www.digital-edge.de](http://www.digital-edge.de)

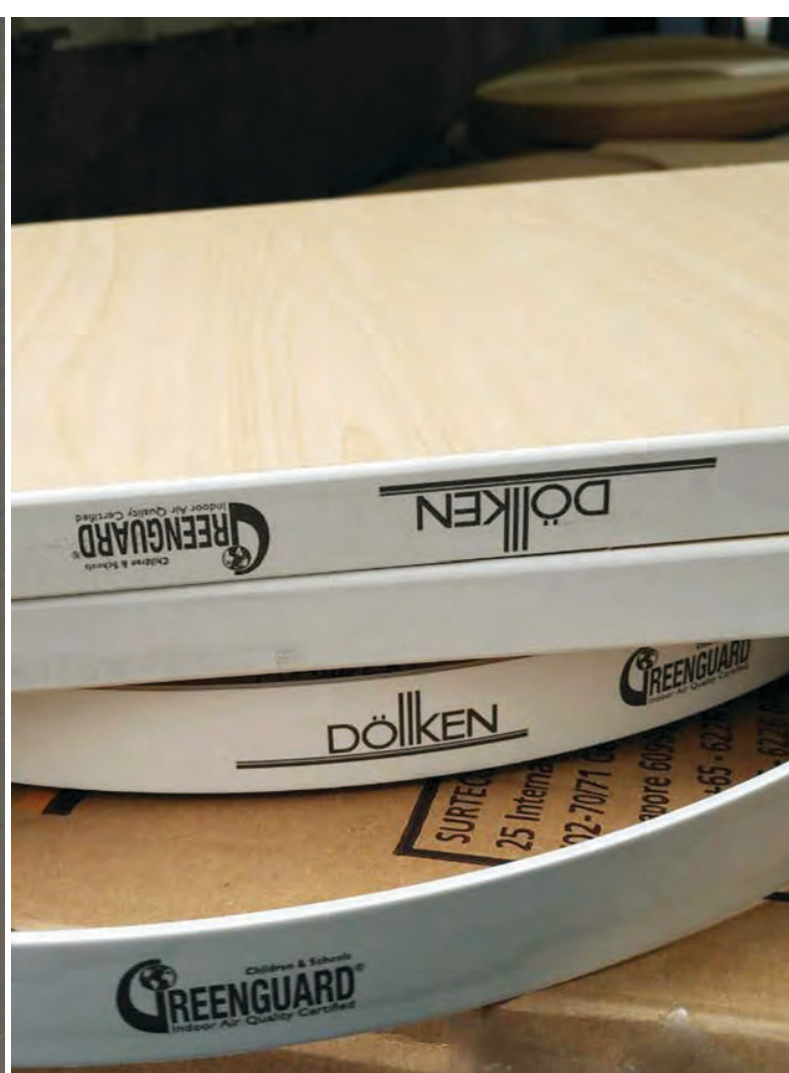


## Premium High Gloss Edgings:

High gloss is in. The current trend is being implemented in virtually all living areas: mirror-finish surfaces as far as the eye can see. The aspirations for the surface properties of the products being used is on an upward trend. The same is also true for the narrow finishes, for example the plastic edge. Döllken presents its latest PVC & ABS edge in premium gloss. This high-end product creates a dazzling effect that is a world first.

The properties of the edge feature excellent surface resistance. This provides a robust finish to withstand mechanical and chemical influences.

Döllken has a varied range of edging solutions to meet a broad spectrum of requirements and sophisticated aspirations. Apart from PMMA, there is also a choice of edges in ABS, PVC and PP- always precisely matched to the level of gloss finish and the design profile of the board.



# GREEN GUARD certified edgings: PVC, ABS, PP 3D/PMMA Perfect match thin & thick edgings

**Doellken edgebands are GREENGUARD certified across the globe**

## **Consumers are behind sustainability**

Customers are increasingly measuring the quality of furniture by its ecological footprint. However, complex production processes often make it difficult for consumers to make this assessment. The prestigious GREENGUARD certification programme represent a reliable guide.

## **All Doellken plants across the globe tested and certificated**

Doellken has had the emission values of its thermoplastic edges (ABS, PMMA, PP and PVC) tested by the GREENGUARD Children & Schools certification programme- and has received worldwide certification. And we can show off this award with some pride because the certification programme contains the most demanding of test criteria for products that are also used within the immediate vicinity of children.



# Performance & specifications

NAME	POLYPROPYLENE	POLY VINYL CHLORIDE	Polymethyl Methacrylate	Acrylonitrile Butadiene Styrene
INITIAL	PP	PVC	3D / PPMA	ABS
COMPOSITION	Semi-Christalline Plastic	Plastic	High grade thermoplastic / ultra transparent acrylic - 3D effect	High quality thermoplastic
UTILISATION	Pipe Extrusion / Packaging Industry / Laboratory fittings / exhibition stands / Kitchen / Office / bathrooms	Office / Bathrooms / Kitchens	Furniture doorfronts in kitchen, bathroom, office desks	Office / Bathrooms / Kitchens
ADVANTAGES	Chlorine free Material / Easy disposed of / Excellent Resistance to solvents / low shrinkage characteristics / Excellent Resistance to warping under heat	Low shrinkage characteristics / Excellent Resistance to warping under Heat / Easy buffed in the radius with a polishing wheel	Polishing un-necessary / impact resistant / hygienic / resistant to normal room humidity levels	Impact resistant / mechanically & thermally resilient / ecologically sound
MANUFACTURING	Extrusion / straight processing edgeband gluing machines and on BAZ machining centres	Extrusion / straight processing edgeband gluing machines and on BAZ machining centres	Applying the decorative finish to the back of the edgeband	Extrusion / straight processing edgeband gluing machines and on BAZ machining centres
ADHESIVES	Hot Melt Glue (EVA, PA, APAO, PUR)	Hot Melt Glue (EVA, PA, APAO, PUR)	Hot Melt Glue (EVA, PA, APAO, PUR)	Hot Melt Glue (EVA, PA, APAO, PUR)
FUSION EDGE	YES	NO	YES	YES
WORKING TEMPERATURE	Room temperature (not below 18°C)	Room temperature (not below 18°C)	Room temperature (not below 18°C)	Room temperature (not below 18°C)
WOOD MOISTURE	MC board should be 7-10 %	MC board should be 7-10 %	MC board should be 7-10 %	MC board should be 7-10 %
VARNISHING	Only be varnished with special varnishes or after being treated with a special primer	Easily be varnished in the colour of your choice without any need for pretreating		Easily be varnished in the colour of your choice without any need for pretreating
STRESS GROUP	1B	1B		1B
THERMAL DECOMPOSITION	Around 300°C		Around 300°C	Around 300°C
LIGHTFASTNESS	7-8 On Wool Colour Scale	7-8 On Wool Colour Scale	7-8 On Wool Colour Scale	6-7 on Wool Colour Scale
INDENTATION HARDNESS (DURETE A LA PRESSION DE BILLE)	80-90 N/mm2	110-130 N/m2	>70 N/m2	100-120 N/m2
SHORE HARDNESS D (DURETE SHORE D)	70 (+- 3) / good Scratch resistance and surface hardness	81 (+- 3) / Good surface hardness and scratch resistance	83 (+- 3) / Good surface hardness and scratch resistance	74 (+- 4) / Good surface hardness and scratch resistance
RESISTANCE TO WARPAGE UNDER HEAT (COEFFICIENT DE DILATATION LINEAIRE A LA CHALEUR)	90°C(+ 5°C)	80°C (+2°C)	90°C (+ 3°C)	94°C (+ 2°C)
SHRINKAGE (RETRAIT)	< 0.2 %	< 0.3 %	< 1.5 %	< 0.3 %
RESISTANCE TO CHEMICAL	Good - 1B	Very Good - 1B	Good	Good - 1B
BEHAVIOUR IN FIRE	Combustible		Combustible	Combustible
SURFACE QUALITY	Matt to Gloss	Super Matt to High Sheen	Silk to High Gloss	Super Matt to High Sheen
STATIC CHARGE	Medium	Low	Low	Very Low
REMARKS	Suitable for indoor / do not rot / to be stored in room temperature in an area protected from the weather / Safe in contact with food / No known source of harm to general health	Suitable for indoor / do not rot / to be stored in room temperature in an area protected from the weather / No known source of harm to general health	Transparency exceeds that of glass / suitable for indoor / do not rot / to be stored in room temperature in an area protected from the weather / No known source of harm to general health / Safe in contact with food	Suitable for indoor / do not rot / to be stored in room temperature in an area protected from the weather / No known source of harm to general health
CROSS CUTTING (COUPE EN BOUT)	Good	Good	Good	Good
MILLING DIRECTION (SENS DU FRAISAGE)	Conventional Milling (GGL)	Climb Milling (GGL) / Conventional Milling (GGL)	Climb Milling (GGL) / Conventional Milling (GGL)	Climb Milling (GGL) / Conventional Milling (GGL)
RADIUS MILLING (FRAISAGE DES ARRONDIS)	Good	Good	Good	Good
PROFILING	Good	Good	Good	Good
SCRAPING (DECAPAGE)	Satisfactory	Good	Good	Good
BUFFING	Satisfactory	Good	Good	Good
SUCEPTIBILITY TO STRESS WHITENING	Low	Low	Low	Low
Varnish Capability	Poor	Good (Acrylic / PUR varnish)		Good (acrylic / PUR varnish)
CNC Compatibility	Good	Very Good	Good for 3D BAZ quality	Good

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