



dekolor
Application example

dekonova
Application example



dekocore
Application example

magic touch
Application example

dekoplus

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Product Description

The product names **dekoplus** - dekolor, dekonova and dekocore stand for decorative high-pressure laminates (HPL) according to DIN EN 438-1 in solid colours, in fancy decors as well as images of natural materials such as fabrics, woods, marble and many more. As defined in this standard, kraft papers impregnated with phenolic and/or aminoplastic resins and a top layer or top layers impregnated with aminoplastic resin, mainly melamine resin, are pressed into decorative high-pressure laminates.

dekolor

In the product group dekolor (HPL-VGS), the top layer is a plain coloured decorative paper melamine film. The plain-coloured decor papers are homogeneously coloured in the mass. The colour scale that can be produced ranges from white to coloured and black. A colour connection is ensured with these paper qualities. These decors are free of heavy metals and have good light stability.

dekonova


In the product group dekonova (HPL-VGS) the top layer is a printed paper melamine film. The printed papers are preferably produced by gravure printing. A colour connection is ensured when reproducing the decors. The printed decor papers are free of heavy metals and have good light stability.

dekocore

In dekocore products (HPL-BTS:BCS), the core layer is homogeneously coloured throughout and can be chosen to match the top layer or to be individually selected.



dekoplus Properties:

-  **Lightfast**
-  **Abrasion resistant**
-  **Scratch resistant**
-  **Food safe**
-  **Cleaning-stable**
-  **Flame retardant**

Properties of the dekodur **magic touch** surface can be found on page 2.

magic touch

In the magic touch product group (HPL-HDS; HDP), the surface is hardened by a special ESH process, making it extremely robust and resistant. As a result, the surface of magic touch achieves a scratch resistance of >3 N (Level 2) in accordance with EN 438 Part 3 and can therefore be used without restriction in horizontal areas, such as tables, desks and worktops.

magic touch is available in 6 standard colours and 3 surfaces:

| MT01/white | MT03/light grey | MT04/dark grey | MT05/black | MT 06/night blue | MT 07/bordeaux | and the formats of **244 x 122cm**, **305 x 122cm** and **305 x 132cm** (on request).

Surfaces:

Matte (MAT), Rust (RST), Stone (STO)

More structures on request.










Properties	Test Method	Property	Unit	HPL	Compact
Surface	ISO 1183		g/cm ³	1.4	1.4
Resistance to surface abrasion	DIN EN 438-2: 10	Abrasion resistance	Initial abrasion point	≥ 200	≥ 200
Resistance to boiling water	DIN EN 438-2: 12	Mass increase	%	-	≤ 2.0
		Thickness increase	%	-5	≤ 2.0
		Appearance	Degrees		5
Resistance to water vapour	DIN EN 438-2: 14	Appearance	Degrees	5	5
Resistance to dry heat (160°C)	DIN EN 438-2: 16	Appearance	Degrees	5	5
Dimensional stability with increased temperature	DIN EN 438-2: 17	Cumulative changes in measurement			
			Lengthwise	%	0.4
Crosswise	%	0.8	0.4		
Resistance to humid heat (100°C)	DIN EN 438-2: 18	Appearance	Degrees	5	5
Resistance to impact with a small diameter ball	DIN EN 438-2: 20	Spring force	N	≥ 25 03. Apr	- -
Resistance to impact with a large diameter ball	DIN EN 438-2: 21	Falling height Diameter	mm mm	-	1800
Susceptibility to cracking under pressure	DIN EN 438-2: 23	Appearance	Degrees	≥ 4	≥ 4
Resistance to scratches	DIN EN 438-2: 25 DIN 68861-4	Strength	Degrees N	3-5	3-5
				3-5	3-5
Stain resistance Group 1 & 2 Group 3	DIN EN 438-2: 26	Appearance	Degrees	5*	5*
			Degrees	4	4
Lightfastness	DIN EN 438-2: 27	Contrast	Grey scale (EN 20105-A02)	4-5	4-5
Gloss level (Reflectometer reading 60°)	DIN EN ISO 2813			About 2-5	

* Spillage of hot liquids (tea, coffee, etc.) can lead to staining on light surfaces

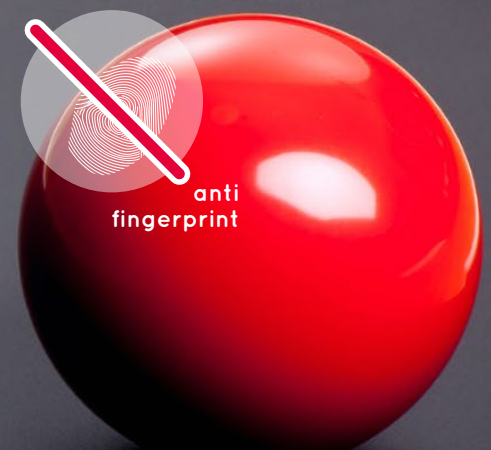
magic touch

Properties:

-  Super matte
-  Soft touch
-  Postforming
-  Hydrophobic
-  Anti-staining
-  Food safe
-  UV resistant



Antibacterial
on request



The DIN EN 438 divides the HPL products by material type and their special basic properties:



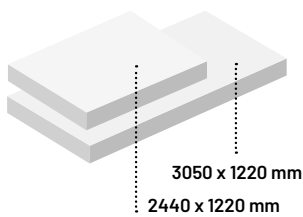
- 1) Standard quality = type S (thickness < 2.0 mm) 3) Postforming quality = type P
- 2) Standard quality = type S (thickness ≥ 2.0 mm) 4) Standard quality with certain burning properties = type F

These dekoplus colours can be produced in a variety of surface structures (see dekovario product group). Laminate for dekoplus with a **nominal thickness of 0.80 mm**: Here we recommend an equivalent laminate without colour and quality requirements.

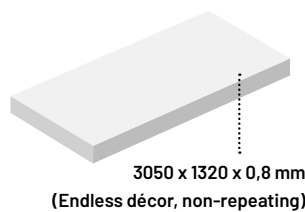
Delivery form and quality

dekoplus panels are delivered in the following formats:

dekolor

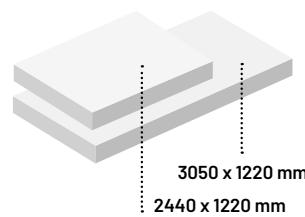


dekonova

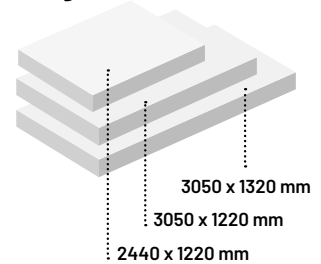


The décors D 070 and D 071 can be delivered in the measurements of 2440 x 1220 x 0.8 mm and 3050 x 1220 x 0.8 mm (repeating).

deko core

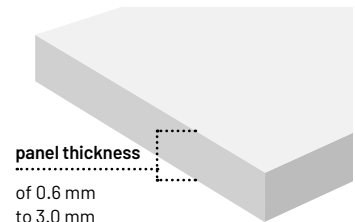


magic touch



Excluded from this is the waffle structure (WAF), which has an **effective width of 1200 mm** with a **length of 2440 mm** (special formats on request). According to DIN EN 438, the tolerance for the nominal length and width must correspond to the limit dimensions of **-0 mm and +10 mm**.

The thickness of dekoplus plates can be manufactured from **0.6 mm to 3.0 mm**. The standard thickness for these types is **0.8 mm (weight: 1.4 kg/m²)**. The limits according to DIN EN 438 also apply to thickness deviations.



Nominal thickness	Limit deviations
0.6 – 1.0 mm	± 0.10 mm
> 1.0 – 2.0 mm	± 0.15 mm
> 2.0 – 2.5 mm	± 0.18 mm
> 2.5 – 3.0 mm	± 0.20 mm

The purchase of thicker dekoplus boards can be discussed with an in-house inquiry.

The fire behaviour of the dekoplus standard quality corresponds to class B 2 according to DIN 4102 and to DIN EN 13501-1 Ds2-d0. dekoplus boards in the qualities **flame retardant** and **non-combustible** are available on request. **All dekoplus grades can be produced in standard quality and in postforming quality.**

In our article description the postforming quality is marked with the abbreviation **NF**. On request, the products can be laminated with a heat-resistant protective film. The processing of dekoplus postforming quality is influenced and determined by a multitude of material and processing parameters (thickness of the material, décor, structure, temperature, feed, rounding profile, rounding radius, etc.) The specific production parameters have to be adjusted to the material properties as well as to the equipment and adhesive selection. A general specification for the forming temperature of the laminate sheet is a range of 140 – 160 °C, the feed rate of 10-20 m/min is another guideline for the postforming process. The laminated board can generally be produced with a bending radius in mm of approx. 10 x the board thickness. When stored under normal climatic conditions (approx. 18 – 23 °C ambient temperature and a relative air humidity of 50 – 65 %), the postforming properties will change only insignificantly for up to one year of storage.



Applications and Processing Methods

The use of dekoplus is intended for stressed decorative surfaces in interior design and furniture. The melamine resin on the laminate surface ensures the use of dekoplus products in vertical and horizontal applications.

The surfaces are easy to clean, a closed surface and a joint-free construction meets the highest hygienic demands. The mechanical and chemical properties (e.g. scratch resistance, impact resistance, heat resistance and resistance to stains) are usage properties of dekoplus.

Typical application examples are:

- Wall coverings
- Ceiling coverings
- Doors
- Stairs
- Windows
- Kitchen furniture
- Bathroom furniture
- Living room furniture
- Hotel and guest room furniture
- Laboratories
- Operating theatres
- Hospitals

The dekoplus laminates can be sawed, milled and drilled with carbide-tipped tools.

Adhesive types suitable for gluing:

- Dispersion adhesives (PVAc)
- Condensation resin adhesives (urea resin)
- Contact adhesives
- Reaction adhesives
- Hot melt adhesives

Dispersion adhesives and condensation resin adhesives are glued with a glue application of approx. **100 - 150 g/m²** and a surface pressure of approx. **2 - 5 bar** (corresponds to a physical pressure of approx. 2 - 5 kp/cm²).

The pressing temperature should be a maximum of 60°C.

Important notice: The higher the gluing temperature is, the higher the chance of injury.



For contact adhesives, reaction adhesives and hot melt adhesives, the processing instructions of the manufacturer must be observed.

In the case of composite elements, special attention must be paid to a symmetrical structure, i.e. the rear side is glued with an appropriate laminate plate.

With reference to the standard DIN EN 14322:2017-7, a guarantee against warping of composite elements can only be given if the elements are covered with the identical material (surface, thickness and structure) on the front and back.

Cleaning and Maintenance

The dekoplus surface is cleaned with a clean cloth, a soft damp sponge or a soft brush. Water with washing powder, soft soap or curd soap can be used as cleaning agent. The surface can be wiped dry with soft paper towels.

Abrasive cleaning agents should not be used.



You can download more detailed information on cleaning the **dekodur magic touch** surface on our website:

www.dekodur.com/files/dekodur/downloads/dekodur-magic-touch-Cleaning.pdf



Storage

dekoplus laminates should be stored in a closed room at **18 - 25°C and 50 - 60% relative humidity over the entire surface and horizontally at a distance of 200 mm from the floor.**

The plate stacks are:

- To be protected from moisture
- Not to be exposed to direct sunlight
- Not to be positioned in a stream of hot air

If horizontal storage is not possible, an inclination of approx. 80° with full-surface support and lower counter bearing is recommended.



Disposal

- dekoplus waste can be burned in officially approved industrial combustion plants
- dekoplus waste can be deposited in landfills in accordance with local waste regulations.
- According to TA-Abfall, version dated 28.3.91, Category I, No. 571, HPL residues are classified as "other hardened plastic waste". Category I means that a material is similar to household waste.

You have Questions?

Then please contact our service department. You can also discuss open questions about special details from DIN EN 438 with our company. If you need samples, you can request them from Dekodur[®] in the form of sample chains or hand samples in DIN A5 or DIN A4.

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