

**dekorial**

**dekostyle metal**  
**dekostyle wood**

## Product Description

The name **dekorial dekostyle metal** stands for a high pressure laminate with a pure Aluminium surface, which has holes and is laquered. This surface is underlaid with a decorative sheet from the *dekoplus – dekonova / dekolor* collection. The plain or printed film gives a decorative effect enhanced by the size and shape of the hole. A combination of printed wood reproductions or a graphic printed motive offers an additional advantage for a decorative application.

If a second aluminium foil with different colours or gloss, is used as a backing, placed one above the other, the result is a very decorative metal surface with optical depth.

These decorative combinations of a metal film with holes with an underlay are then applied to phenolic resin, using high pressure.

A special baked enamel on epoxy-resin base or a PU coating on the perforated metal foil is a measure for the protection of the metal surface.

The aluminium layer in *dekostyle* is generally in the form of a brushed metal surface.

The perforated aluminum layer with **dekostyle metal** is preferably available in brushed metal surface.

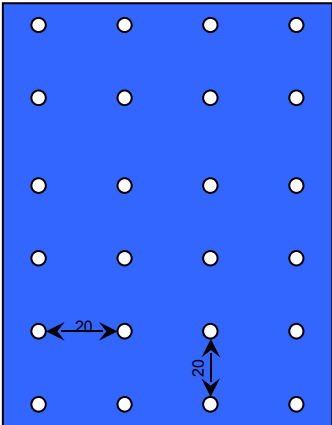
In the variant **dekorial dekostyle wood** are real metal laminated plastic plates (HPL) covered with wood reproductions of different woods, provided with three **different perforation types**. The high-quality character of various woods, combined with mirror-bright metal, develops a unique visual impression. The surfaces of the different wood types resemble in their mechanical properties those of melamine HPL.

The slight unevenness in the surface in some of the aluminium surfaces laminates is one of the features of *dekostyle*. The slight indentations are at the present stand of the technique and are unavoidable and normal. Slight colour variations occur during the production and are not detrimental to the overall appearance.

**Arrangement to the hole motives for dekostyle metal:**

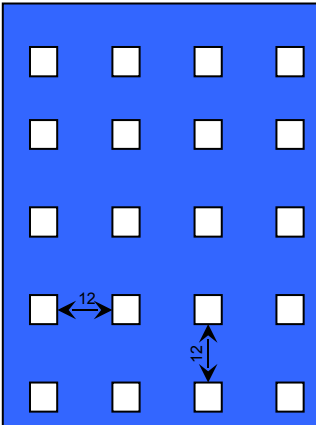
**AP**

Round holes: 3mm  
 Distance between holes: 20mm  
 Rows: parallel



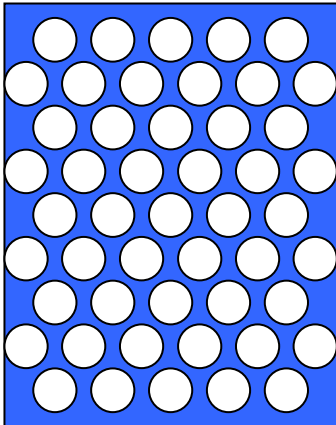
**KA**

Sqare holes: 8mm  
 Distance between holes: 12mm  
 Rows: parallel



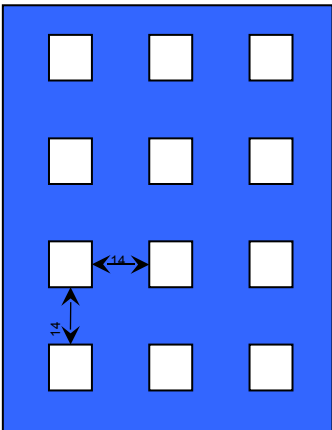
**BD**

Round holes: 12mm  
 Distance between holes: 4mm  
 Rows: diagonal



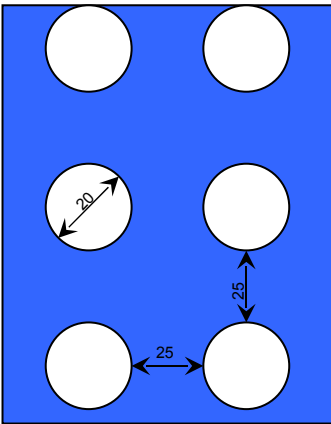
**KP**

Sqare holes: 8mm  
 Distance between holes: 12mm  
 Rows: parallel



**BG**

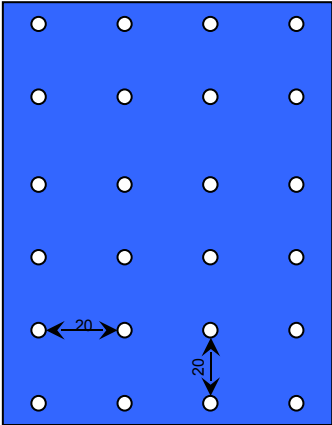
Round holes: 20mm  
 Distance between holes: 25mm  
 Rows: parallel



**Arrangement to the hole motives for dekostyle wood:**

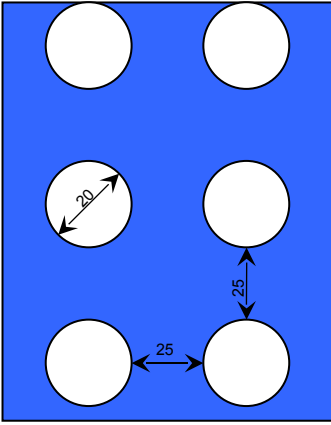
**AP**

Round holes: 3mm  
Distance between  
holes: 20mm  
Rows: parallel



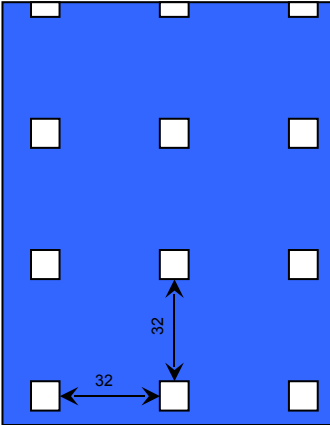
**BG**

Round holes: 20mm  
Distance between  
holes: 25mm  
Rows: parallel



**KC**

Sqare holes: 8mm  
Distance between  
holes: 32mm  
Rows: parallel



Four metal foils with holes (A 241, A 250, A 251, and A 256) and 6 different woods for **dekostyle-wood** are available for selection. The hole patterns are available in 6 versions as standard production. The extremely large spectrum of products is partly due to the great extent of the backing sheets. With plain colours and printed melamine films (fantasy and wood) *dekostyle* offers more than 400 variations. The holed aluminium foil combined with the mirror foil (A 210, A 211, and A 216) results in a further 48 available products. 54 new variations result from the combination of the perforations for **dekostyle-wood** with the different woods and aluminum underlays. **The hole pattern AP is not available in this version.** The combination, decorative underlay and surface, in *dekostyle*, develop their full effect with a smooth surface.

**Backing sheets for *dekostyle*:**

A 209 Pure Aluminium HPL    smooth/hammered - laquered HPL                      (Natural aluminium colour)

We recommend this Aluminium quality in smooth and in hammered surface as an inexpensive backing sheet.

**Dimensions and Quality**

All **dekostyle** sheets are delivered in the dimensions 2440 mm by 1220 mm.

The tolerances for the dimensions along and across the sheets as required in EN 438 are:

$$- 0 \text{ mm} + 10 \text{ mm}$$

The **dekostyle** sheets can be produced in thickness from 0.8 mm to 4.0 mm. The standard thickness in the listed products is 0.9 mm giving a density of 1.3 kg/m<sup>2</sup>.

The limits for variations in thickness are also defined in EN 438.

<b>Nominal thickness</b>	<b>Maximum thickness</b>
0.8 – 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

If thicker sheets of **dekostyle** are required, direct contact with **Dekodur®** is advisable.

Behaviour in case of fire – the standard quality is classified as B2 – B1 when tested according to DIN 4102. For *dekostyle* sheets in the quality "Flame retardant" a direct

contact with **Dekodur®** is advised. This quality is certified by Lloyd's Register and fulfils the requirements of IMO FTC.

A protective surface foil is absolutely necessary. This foil must be removed after 6 months at the latest, as by later removal the surface could be damaged.

**dekorial *dekostyle* is produced in standard quality only**

## **Application and Processing**

**dekorial *dekostyle*** is intended for use as decorative vertical surfaces in interior application.

Typical applications are: Wall cladding, ceiling cladding, home furniture, hotel and restaurant furniture, fronts of drawers, signs for shops and firms, shelf cladding, counters and displays in shops, surfacing for doors and doorframes.

For use on surfaces exposed to heavy wear, it is recommended that the surface be protected by a glass sheet.

**The *dekostyle* laminates can be sawed, routed and drilled using carbide tipped tools.**

Cautions to be taken when bonding in surfacing presses:

Maximum temperature 60C°  
Press pressure 0.15 – 0.20 N/mm<sup>2</sup> (1.5 – 2.0 bar)  
Soft cushioning between laminate surface and press plates.

**For *dekostyle wood*, the following is to be considered:**

The same conditions basically apply as *for **dekostyle metal***

All standard commercial glues which can be used for bonding standard high pressure laminates can be used:

**Glue types:**

- dispersion glues (PVAc)
- condensation resin glues (Urea resin)
- contact glues
- 2 component glues
- hot melt glues

When PU-glues are used great care must be taken that glue residues are completely removed from the surface before they harden.

With elements, a symmetric construction is necessary. This is obtained by the use of a balancing sheet which must be bonded to the reverse side. A flat element can be obtained by using a sheet of the same type in 2<sup>nd</sup> quality or the blancing sheet A 209.

## Bonding HPL-sheets surfaced with pure metal foils

The bonding of HPL sheets surfaced with pure metal sheets using

- contact glues (containing a solvent)
- condensation glues (resins based on phenol and/or resorcinol)

requires special precautions and close adherence to the manufacturer's instructions. Special attention must be paid to a uniform, but not too higher gluespred, sufficient airing (insufficient airing can lead to later-on blistering between the metalfoil and the core of the laminat and/or lead to the seperation of the metalfoil to the laminat. Here contact with the manufacturer is essential) and sufficient pressure in the press. The surfaces to be bonded should be kept as small as possible.

At least one edge should not exceed 800 mm.

### General rules for bonding HPL, surfaced with pure metal, to wooden substrates

(particle board V 20, particle board V 100, plywood, hardboard or solid wood)

Glues employed	Condensation glues		
	Urea resin with approx. 10% filter	Urea-Melamine resin	Phenol Resorcinol resins
For use as in DIN 204	D 3	D 3	D 3 / D 4
Resistance in Temperature	between - 20°C + 150°C		between - 20°C + 150°C
	~ Gluespred: 90-150 g/m <sup>2</sup> on HPL or substrate		100-180 g/m <sup>2</sup>
	~ Open time: 2-20 min		2-15 min
	~ Press pressure approx. 3-5 bar		3-5 bar
	~ Press temperature/Press time: 20 °C / 15-180 min		20°C approx. 9 hours
	40 °C / 5-30 min		80°C approx. 10 min
	60 °C / 1-12 min		110°C approx. 5 min
	~ Open and press times are dependant on the amount hardener used.		
Glues employed	Contact glues		
	without hardener	with hardener	with built-in hardener
For use as in EN 204	not classified under EN 204		
Resistance to Temperature	between - 20 °C + 70 °C	between - 20 °C + 100 °C	Contact the manufacturer
	~ Gluespred: 150-200 g/m <sup>2</sup> on both HPL and substrate		These are special glues and therefor no values can be given.
	~ Open times: dependant on ambient temperature and on the type of glue used (Fingertest)		
	~ Presspressure: at least 5 bar		Contact with the manufacturer is essential.
	~ Press temperature: 20 /40 / 60 °C		
	~ Pressing times: short		
	A roller press is recommended		

## Cleaning and Maintenance

Cleaning the surface of a *dekostyle* sheet is best carried out using a clean cloth, or a soft sponge using soap and plenty of water or a glass cleaner.

**Abraasive cleaners, acids, or alkalise should never be used.**

## Storage

The *dekostyle* sheets should be stored in a closed room with a temperature of 18-25°C and 50-60% relative humidity. Furthermore, they have to be stored full-laminar and horizontally with a distance of 200 mm to the ground.

The sheets

- are to be protected from moisture
- should not be exposed to direct sunlight
- should not be stored in a warm-air-stream

Should horizontal storage not be possible a skew of 80°, with the surface being entirely supported by a fully covering back-support, is recommended.

## Waste Disposal

*Dekostyle* waste can be **burnt** in officially accepted incinerators.

*Dekostyle* waste can also be disposed of in landfills in accordance with the local regulations.

The German authorities classify high pressure laminate waste as “other hardened synthetic material waste” and so similar to household waste.

**Should you have any questions, please do not hesitate to contact our service department.**

**If you need samples, you can order these in the form of chains, A5 or A4 from Dekodur®.**