

Product data sheet

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dekoart

unique art

Product Description

The name *dekoart – unique art* stands for a high pressure laminate (HPL) with a **hand-coloured copper** surface. **The motives were designed and coloured by artists.** The 0.035 mm thick metal layer is applied to a core of phenolic resin using high pressure.

All our products are coated with an UV – lacquer based on acryl. The lacquer has scratch hardness in EN 438 of

> 1, 5 N.

The surface is unaffected by common household agents / solvents. Alcohol has no effect. Slight variations of the silky shine / gloss coming from raw copper material are unavoidable.

Each laminate sheet is unique. The colouring technologies by hand allow, with regard to motive and colours – and in particular: design – that the *unique art* sheets are very similar, but never identical.

Backing sheets for *unique art*:

1) A 209 Pure aluminium smooth/hammered lacquered (Natural aluminium colour)

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

2) C 400 Pure copper lacquered or in brown tone and lacquered

This copper product, with no quality specifications, is suitable as a backing sheet.

Dimensions and Quality

All *unique art* sheets are delivered in the standard dimensions 2440 mm x 1220 mm.

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

- 0 mm and + 10 mm

The *unique art* sheets can be produced in thickness from 1.2 mm to 3.0 mm. The standard thickness is 1.2 mm, giving a density of 2.1 kg/m².

The limits for variations in thickness are also governed by EN 438.

Nominal thickness	Maximum tolerances
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

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

Behaviour in case of fire – the standard quality of *unique art* is classified as B2 – B1 when tested according to DIN 4102.

For *unique art* 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 foil is absolutely necessary. This foil must be removed after 6 months at the latest, as by later removal the copper surface could be damaged.

All *unique art* sheets are available in standard quality only.

Application and Processing

Unique art sheets are intended for use as decorative vertical surfaces in interior application, also for surfaces which are not exposed to heavy wear.

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, shipbuilding and coach fittings etc.

For surfaces exposed to heavy wear, it is recommended that the surface of the *unique art* sheet should be protected by a sheet of glass or similar material.

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

Caution to be taken when bonding unique art in surface presses.

Maximum temperature 60°C
Press pressure 0.15 – 0.20 N/mm² (1.5 – 2.0 bar)
Soft cushioning between laminate surface and Press plates.

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 compound 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 2nd quality or a balancing sheet A 209.

Bonding HPL-sheets surfaced with pure metal foils

The bonding of HPL sheets surfaced with pure metal sheets using

- I contact glues (containing a solvent)
- II 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 ² on HPL or substrate ~ Open time: 2-20 min ~ Press pressure approx. 3-5 bar ~ Press temperature/Press time: 20 °C / 15-180 min 40 °C / 5-30 min 60 °C / 1-12 min ~ Open and press times are dependant on the amount hardener used.		100-180 g/m ² 2-15 min 3-5 bar 20°C approx. 9 hours 80°C approx. 10 min 110°C approx. 5 min

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 ² on both HPL and substrate ~ Open times: dependant on ambient temperature and on the type of glue used (Fingertest) ~ Presspressure: at least 5 bar ~ Press temperature: 20 /40 / 60 °C ~ Pressing times: short A roller press is recommended		These are special glues and therefor no values can be given. Contact with the manufacturer is essential.

Cleaning and Maintenance

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

Abrasive cleaners, acids or alkalise should never be used.

Storage

The *unique art* 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

Unique art waste can be **burnt** in officially accepted incinerators.

Unique art can also be disposed of in landfills in accordance with the local regulations.

The German authorities classify high pressure laminate waste as “other hardened plastic waste material”, which means that it is similar to household waste.

Should you have any further 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®.