

## TECHNICAL DATA

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### **Product Description**

Octolam copper laminates are high pressure laminates with a pure copper surface. The surface is applied to a core of phenolic resin using high pressure. All Octolam copper laminates are coated with a UV lacquer based acryl. The lacquer has a scratch hardness EN 438 rating of > 1,5 N.

The surface is unaffected by common household agents and solvents. Alcohol has no affect. A slight variation in the silky shine / gloss that comes from raw copper materials is unavoidable.

A slight unevenness in the surface of the laminates is one of the features of this product. Slight indentations are unavoidable and normal. Slight variations in colour are also normal, especially from one production run to another, but are not detrimental to the overall appearance.

The pure metal surface is suitable in connection with rustic surface structures for individual internal decorative fittings. These are enhanced by the possibility of a brown toning. The various copper laminates available are characterised by stark surface structures.

### **Backing Sheets**

Aluminum backing sheets of equal thickness should be used.

### **Dimensions and Quality**

Octolam copper laminates are available in size 2440x1220 mm.

Dimensional tolerance / EN 438: - 0mm and +10 mm.

### **Thickness**

Thickness of 1.2 mm, with a density of 2.1 kg/m<sup>2</sup>

Thickness tolerance / EN 438:  $\pm 0.15$  mm

**Fire**

Classification: B1 – B2 when tested according to DIN 4102.

Certified by Lloyd's Register and fulfills requirements of IMO FTC.

**Grade**

Octolam copper laminates are stocked in Standard Grade.

**Protective Foil**

All Octolam aluminum laminates are supplied with a protective foil which should be removed immediately upon completion of an installation.

**Storage**

Sheets should be stored in a closed room with a temperature of 18-25°C at 50-60% relative humidity. Store horizontally at 200mm distance from the ground. If this is not possible, store at an 80° angle with the sheet fully supported from behind.

Protect sheets from moisture, direct sunlight and away from any warm air-stream.

**Application and Processing**

Octolam aluminum laminates are intended for use as a decorative vertical surface in interior application, also for surfaces which are not exposed to heavy wear.

Typical applications are: Wall 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; boat fixtures; wagon and coach fittings, etc.

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

**Cutting**

Octolam aluminum laminates can be sawed, routed and drilled using carbide tipped tools.

## **Bonding**

### ***Precautions to take when bonding in surface presses:***

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

All standard commercial glues which are designed 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.

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 2<sup>nd</sup> quality.

## **BONDING HPL-SHEETS SURFACED WITH PURE METAL FOILS**

The bonding of HPL sheets surfaced with pure metal using contact glues (solvent based) or condensation glues (Resin 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, adequate glue spread, sufficient airing (insufficient airing can lead to eventual blistering between the metal foil and the core of the laminate and/or lead to separation of the foil from the laminate). Sufficient pressure in a press must be used also. 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)

Glue Employed	Condensation Glues		
	Urea resin with approx. 10% filler	Urea-Melamine Resin	Phenol Resorcinol resins
For Use in DIN 204	D 3	D 3	D3 / D 4
Resistance to Temperature	Between -20 °C to +150°C		Between -20 °C to +150°C
~ Gluespread: 90-150 g/ m <sup>2</sup> on HPL or substrate  ~ Open Time: 2-20 min.  ~ Press Time: 3-5 bar  ~ Press temperature/Press Time: 20 °C / 15-180 min 40°C / 5-30 min 60°C / 1-12 min  ~ Open Press Times are dependant on the amount of hardener used.		100-180 g/ m <sup>2</sup>  2-15 min  3-5 bar  20 °C approx. 9 hours 40°C / approx. 10 min. 60°C / approx. 5 min.	

Glue Employed	Contact Glues		
	Without hardener	With hardener	With built-in hardener
For Use in EN204	Not classified under EN 204		
Resistance to Temperature	Between -20 °C to +70°C	Between -20 °C to +100°C	Contact manufacturer
~ Gluespread: 150-200 g/ m <sup>2</sup> on both HPL and substrate  ~ Open Time: Dependant on ambient temperature and on the type of glue used (Fingertest)  ~ Press Pressure: At least 5 bar  ~ Press temperature: 20 °C / 40°C / 60°C  ~ Press Times: Short A roller is recommended.		These are special glues and therefore no values can be given.   Contact manufacturer.	

**Cleaning and Maintenance**

Clean the surface with a clean cloth or a soft sponge, using soap and plenty of water or glass cleaner.

*Abrasive cleaners, acids or alkaline products should never be used.*

**Waste Disposal**

Sheets can be burned in an incinerator or disposed of in landfills in accordance with local regulations. Most regions consider high pressure laminate as household waste.

For additional information or samples please contact us at:

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