

TECHNICAL DATA

Product Description

Octolam stainless steel laminates are high pressure laminates with a stainless steel foil surface (Formula X 5 CrNi 18 10). The metal foil of 0.05 mm thickness is applied to a core of phenolic resin using high pressure.

The surface is unaffected by common household agents and is resistant to the following chemical solutions: 10% nitric acid; 10% phosphoric acid; 10% sulphuric acid; 10% sodium hydroxide; 10% potassium hydroxide; 10% ammonia; 5% washing soda. Alcohol and other solvents such as petrol, acetone, etc. have no effect on the stainless steel surface.

Contact of the stainless steel surface with foodstuffs in daily use presents no problems.

Slight variations in shine, colour and evenness in the surface, coming from raw stainless steel material and processing are unavoidable and normal. These variations are not detrimental to the overall appearance.

Backing Sheets

Second quality backing sheets of similar stainless steel laminates should be used. Aluminum backing sheets if similar thickness can also be used.

Dimensions and Quality

Octolam standard stainless steel laminate sheets are available in size 2440x1220 mm and have a centre seam running in the 8 foot direction. (Two 2440x610 mm foils butt-joined and adhered to a 2440x1220 phenolic backing).

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

Thickness

Thickness of 0.8 mm, with a density of 1.4 kg/m²

Thickness tolerance / EN DIN 438: ± 0.10 mm

Maximum Stress – Temperature

Octolam stainless steel laminates (With the exception of Octolam 864) remain steady while under continuous stress of -24°C to +90°C, with short-lived stressing of the material up to -35°C to +120°C.

The quality of Octolam 864 may not be continuously stressed higher than +70°C and not under short-lived stress higher than +90°C.

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 stainless steel 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 stainless steel laminates are intended for use as a decorative horizontal and vertical surface in interior application, also for surfaces which are not exposed to heavy wear.

Typical applications are: Hotel and restaurant furniture; shelf cladding, counters and displays in shops; wall cladding; kitchen furniture; bathroom furniture; home furniture; laboratories; theatres; hospitals.

Octolam stainless steel laminates are hard-wearing and easy to clean.

Cutting

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

Caution: Diamond tipped saw blades and diamond tipped routers should not be used.

When processing Octolam stainless steel laminates it is important to keep the cutting pressure low so as to reduce the risk of pulling up the edges of the foil. Alternate tooth – fine cut saw blades with a tooth spacing of 100 by 3000 rpm, and a feed rate of 3-4 m/min is recommended.

The cut edge must be smooth. A file or sandpaper can be used to smooth the edges. A Diamond Handlap, Black 18” sand block by 3M can also be used.

All edges must be covered to avoid the risk of injury.

Bonding

Precautions to take when bonding 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 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 2nd 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% filter	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

<p>~ Gluespread: 90-150 g/ m² on HPL or substrate</p> <p>~ Open Time: 2-20 min.</p> <p>~ Press Time: 3-5 bar</p> <p>~ Press temperature/Press Time: 20 °C / 15-180 min 40°C / 5-30 min 60°C / 1-12 min</p> <p>~ Open Press Times are dependant on the amount of hardener used.</p>	<p>100-180 g/ m²</p> <p>2-15 min</p> <p>3-5 bar</p> <p>20 °C approx. 9 hours 40°C / approx. 10 min. 60°C / approx. 5 min.</p>
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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

<p>~ Gluespread: 150-200 g/ m² on both HPL and substrate</p> <p>~ Open Time: Dependant on ambient temperature and on the type of glue used (Fingertest)</p> <p>~ Press Pressure: At least 5 bar</p> <p>~ Press temperature: 20 °C / 40°C / 60°C</p> <p>~ Press Times: Short A roller is recommended.</p>	<p>These are special glues and therefore no values can be given.</p> <p>Contact manufacturer.</p>
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Cleaning and Maintenance

Clean the surface with a clean cloth or a soft sponge. In the case of an extremely soiled surface, Witex laminate cleaner is recommended, which is available in either a Concentrate ST 600 or as a spray in SR 6001.

To make stainless steel surfaces less sensitive to fingerprints, the product Chromol (From Henkel) can be used.

Abrasive cleaners could leave marks on the surface.

Waste Disposal

Sheets can be disposed of in landfills in accordance with local regulations. Most regions consider stainless steel laminate as “other hardened plastic waste”, which means that it’s similar to household waste.

For additional information or samples please contact us at:

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