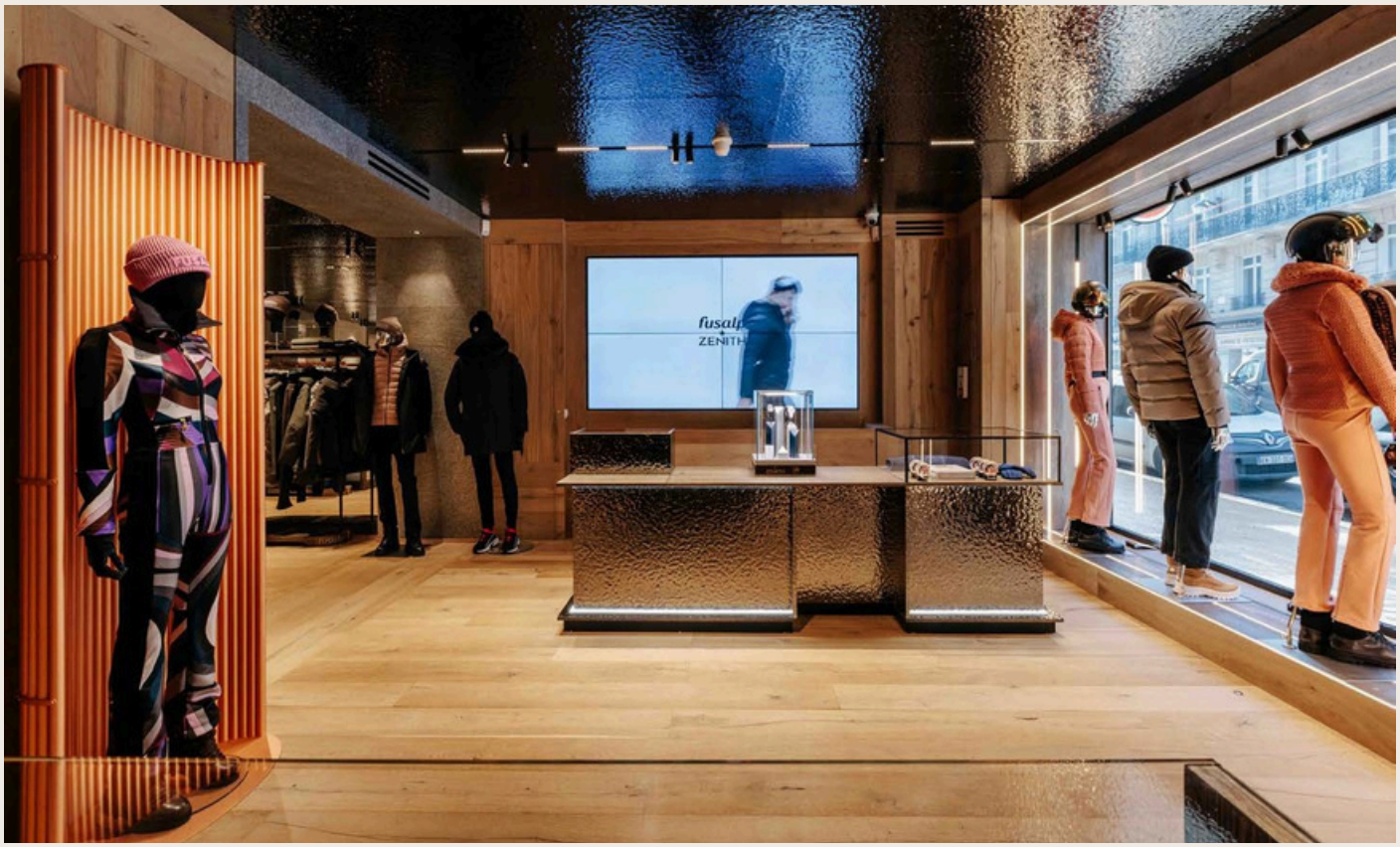


METAL ON LAMINATE

MÉTAL

hubler
la matière pour la création

COMPOSITION - FINISH

Decorative laminate products featuring a real metal foil as the decorative layer.
The backing of the foils consists of kraft paper sheets impregnated with phenolic resin.
The metal finish is satin or glossy, depending on the product code.
The surfaces are protected as follows:
• Epoxy varnish for all product codes from MTAL10 to MTAL55, as well as product codes MTAL57, 60, 61, 62, 63, 64, and 65 (resin treatment)

• UV varnish for models ranging from MTAL57 to MTAL69 in genuine copper or brushed aluminum (Robuste grade) (models MTAL57, 60, 61, 62, 63)

• No finish for model MTAC56 (genuine stainless steel sheet on a laminated backing).
We offer hidden backing panels in random colors and patterns that match
our finishes, with thicknesses ranging from 10/10 to 13/10: D001, D002, D005, D007, D009, D001R.

To determine which backing panel to choose, please refer to either:

• On the product page for each design available on our website

• At the wholesale price

• From our sales teams for more details tailored to your project

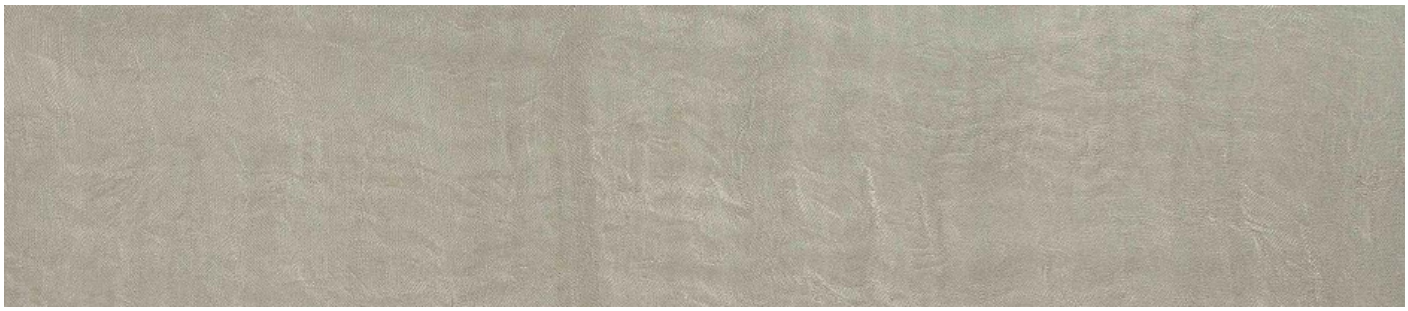
DIMENSIONS STANDARDS

SIZES: 244 x 122 cm and also 305 x 122 cm for certain items (see price list).

FLATNESS: up to 100 mm/m.

THICKNESSES: approximately 8 to 13/10 mm depending on the product (see price list). Tolerance: ±0.2 mm
For balancing, two different thicknesses (10/10ths and 13/10ths) can be used in the same order, either as individual sheets or as panels + Hubler.

WEIGHT: depending on the structure and finish, the weight varies from 1.1 kg/m² to 2 kg/m
• All metal product codes beginning with MTAL and MTAC = 1.5 kg/m²
• All metal product codes (codes MTAL57, 60, 61, 62, 63) = 2 kg/m²



TECHNICAL SPECIFICATIONS

SURFACE RESISTANCE	The surface protection provides the sheets with satisfactory resistance to scratches, abrasion, and common household and industrial chemicals that do not contain abrasive components (excluding solvents such as acetone) as well as to oxidation.
ENVIRONMENTAL CERTIFICATION	Hubler's metal sheets can be FSC®-certified on request (FSC® licence -C201649).
HEAT RESISTANCE	Maximum temperature 80°C.
FIRE RESISTANCE	Products with a thickness of less than 2 mm are not covered by the Euroclass standards (see standard EN 438-7).
BENDING	Concave or convex cold bending is possible with a radius of curvature that varies according to thickness (approximately 13 cm for 8 to 10/10 mm, increasing to approximately 18 cm for 13/10 mm). The minimum radius is 20 cm for polished (anodised) aluminium to prevent micro-cracking.

STORAGE

Before lamination, and to prevent warping, the sheets must be stored and packed flat for several days in a closed, dry room, together with the backing materials and balancing sheets.
The conditions to be observed are:

Temperature: 18 to 25°C.

Relative humidity: 40 to 60 per cent.

The sheets must be laid flat (without touching the floor), in stacks or in racks.
The decorative sides must face each other, and the top sheet must be placed with the reverse side facing upwards
and covered to keep the stack flat.
They must also be protected from sunlight and moonlight.
A sheet delivered rolled up in a cardboard box cannot be used immediately.

EQUIPMENT

Hubler® metal sheets are marked on the protective film with the date of manufacture.
Minor colour variations may occur between batches.
It is important to check the goods and identify any batches before use. An arrow appears on the film indicating the direction in which the sheet should be laid; this must be followed
for the entire batch.

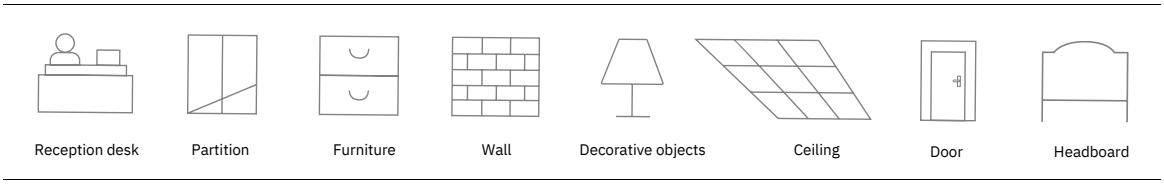
IMPLEMENTATION

Generally speaking, these sheets are worked and bonded in the same way and onto the same substrates as conventional laminates, apart from the following requirements:

DIRECTION OF INSTALLATION	Metal finishes may vary in shade depending on the direction of installation; please ensure you follow the direction of the arrows printed on the protective films before applying the product. The anti-scratch treatment improves the product's durability, but we do not recommend installing it horizontally.
HOT-PRESS BONDING	Pressure *: maximum 3 kg/cm² (reduced to 1 kg/cm² for polished aluminium to prevent 'telegraphing'). * When press-bonding embossed decorative finishes, insert a sheet of foam to compensate for the pressure differences caused by the embossing. Temperature: maximum 60°C, so as not to cause stresses that could adversely affect the performance of the various components (brackets, etc.).
EQUILIBRAGE	To counterbalance these metal sheets on laminate, the use of standard laminates is not guaranteed (due to different coefficients of expansion). For freestanding panels (doors, etc.), it is advisable to balance them using sheets of the same grade on both sides (first or second choice of the same type or specific balancing options: second choice or specific grades supplied on request), always glued in such a way that the sanding direction on the back of the panels is the same (i.e. never at right angles). Alternative balancing methods may be possible, subject to testing and without guarantee, in other cases (fixed panels used as wall cladding, etc.). Hubler balancing discs with the same reference number vary in thickness between 0.8 and 1 mm.m.
MACHINING	Surface (decorative finish) must always face upwards. For stainless steel, a detailed technical guide setting out the procedure to be followed is available (machining is more complex than with other metals and requires the use of tungsten carbide tools).
PROTECTION	All sheets are protected on the surface by a transparent plastic film (which offers poor UV resistance) that should only be removed once the work has been completed by the end user to prevent any damage to the surface during installation (writing on the protective film is not recommended due to the risk of scratches or marks from felt-tip pens, markers, etc. onto the surface of the sheets).

USE

A wide range of applications for vertical and horizontal use under low loads (for product codes ending in R, indicating the ‘Robust’ grade)



MAINTENANCE

Clean with warm soapy water and a soft cloth.
Avoid using abrasive products, metal polishes and solvents.
For stainless steel, use products specifically designed for cleaning this material (such as ‘EQUINOX’...).

WARRANTY

HUBLER guarantees that the sheets it sells possess the characteristics set out in this document. It is hereby clarified that irregularities or imperfections in the surface,
structure or colour must be regarded as normal and do not constitute a defect in the products.
In the event of a dispute, the guarantee and liability of HUBLER and the manufacturer, FORMICA France, shall be limited to the supply, free of charge, of unpatterned sheets to replace those recognised as defective. The installation and intended use of the products are, moreover, beyond the control of these two companies.
The manufacturer’s technicians are available to assist customers in the event of specific technical problems.