

	8200 Magnetic Board for individual finish	8202 White glossy with grid points	8205 Black matt/ Chalk	8206 White glossy/ Board marker	8207 White matt/ Board marker and Projection
Size a: 2440 x 1220 mm b: 3050 x 1220 mm	a, b	a, b	a, b	a, b	a, b
Thickness	1,0	1,0	1,0	1,0	1,0
Weight [kg/m²]	2,8	2,8	2,8	2,8	2,8
Surface Finish:	Melamine	Melamine	Melamine	Melamine	Melamine
Balancing	8200	011	011	011	011
Tolerances Thickness: Length: Width: Flatness:	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m
Postforming	not possible	not possible	not possible	not possible	not possible
Processing	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²
Max. Temperature in use	60° C (short-term)	60° C (short-term)	60° C (short-term)	60° C (short-term)	60° C (short-term)
Health	harmless	harmless	harmless	harmless	harmless
Rollable	yes	yes	yes	yes	yes
Bending Radius*	Product group 8	Product group 8	Product group 8	Product group 8	Product group 8



* see separate Datasheet



	8208 Light Grey glossy/ Board marker	8211 Green matt/ Chalk	8214 Smokey Blue matt/ Chalk	8224 Stone Grey glossy/ Board marker	8225 Stone Grey matt/ Chalk
Size a: 2440 x 1220 mm b: 3050 x 1220 mm	a, b	a, b	a, b	a, b	a, b
Thickness	1,0	1,0	1,0	1,0	1,0
Weight [kg/m²]	2,8	2,8	2,8	2,8	2,8
Surface Finish:	Melamine	Melamine	Melamine	Melamine	Melamine
Balancing	011	011	011	011	011
Tolerances Thickness: Length: Width: Flatness:	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m
Postforming	not possible	not possible	not possible	not possible	not possible
Processing	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²
Max. Temperature in use	60° C (short-term)	60° C (short-term)	60° C (short-term)	60° C (short-term)	60° C (short-term)
Health	harmless	harmless	harmless	harmless	harmless
Rollable	yes	yes	yes	yes	yes
Bending Radius*	Product group 8	Product group 8	Product group 8	Product group 8	Product group 8

* see separate Datasheet



	8231 Alu Cross-brushed Natural	8232 Applegreen glossy / Board marker	8233 Macchiato glossy/ Board marker	8234 Macchiato matt/ Chalk	8253 Wine Red matt/ Chalk
Size a: 2440 x 1220 mm b: 3050 x 1220 mm	a, b	a, b	a, b	a, b	a, b
Thickness	1,3	1,0	1,0	1,0	1,0
Weight [kg/m²]	2,8	2,8	2,8	2,8	2,8
Surface Finish:	Epoxy	Melamine	Melamine	Melamine	Melamine
Balancing	011	011	011	011	011
Tolerances Thickness: Length: Width: Flatness:	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m
Postforming	not possible	not possible	not possible	not possible	not possible
Processing	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²
Max. Temperature in use	60° C (short-term)	60° C (short-term)	60° C (short-term)	60° C (short-term)	60° C (short-term)
Health	harmless	harmless	harmless	harmless	harmless
Rollable	yes	yes	yes	yes	yes
Bending Radius*	Product group 8	Product group 8	Product group 8	Product group 8	Product group 8

* see separate Datasheet



	8259 Applegreen matt/ Chalk	8267 Slate black	8276 Curry matt/ Chalk	8277 Curry glossy/ Board marker
Size a: 2440 x 1220 mm b: 3050 x 1220 mm	a, b	b	a, b	a, b
Thickness	1,0	1,0	1,0	1,0
Weight [kg/m²]	2,8	2,8	2,8	2,8
Surface Finish:	Melamine	Melamine	Melamine	Melamine
Balancing	011	011	011	011
Tolerances Thickness: Length: Width: Flatness:	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,18 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m
Postforming	not possible	not possible	not possible	not possible
Processing	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²	at max. temperature of 60° C and max. pressure of 0,3 N/ mm ²
Max. Temperature in use	60° C (short-term)	60° C (short-term)	60° C (short-term)	60° C (short-term)
Health	harmless	harmless	harmless	harmless
Rollable	yes	yes	yes	yes
Bending Radius*	Product group 8	Product group 8	Product group 8	Product group 8

* see separate Datasheet

GENERAL INFORMATION

Due to an iron foil which is embedded in the laminate a very high magnetic effect is achieved. As such, large-format documents, e.g. plans, posters and other objects, can be easily fixed in place with magnets and then removed again without a trace.

Note:

The kraft paper core layers are impregnated with phenol-formaldehyde resin. The HOMAPAL® magnetic boards consist of approx. 55% paper, 25% iron foil and 20% melamine (except of decor 8231).

The phenol-formaldehyde resin is irreversibly chemically cross-linked and forms a cured, stable material whose properties are fundamentally different to those of the raw materials.

HOMAPAL® magnetic boards are manufactured under the simultaneous application of heat (> 120°C) and a high specific pressure (> 5 MPa).



CARE AND CLEANING

HOMAPAL® magnetic boards are protected with a removable transport foil. It is recommended to clean the surface after having removed the protective foil or before using the board for the first time in order to remove possible residues of the film. For this **thorough cleaning** a conventional spirit (ethyl alcohol) can be used. We also recommend the thinner V100 from EDDING. Never use detergents such as washing-up liquids to clean the surface because they usually contain fatty substances for the skin. A greasy film can remain on the surface making it extremely difficult to clean the surface dryly then. Alternative cleaning agents should only be used after consultation with HOMAPAL Application Technology. A soft, lint-free cloth and a mild cleaning agent should always be used for cleaning. Strongly alkaline, strongly acidic, or cleaning agents with abrasive components must not be used. Alternative cleaning agents should only be used after consultation with HOMAPAL Application Technology.

The HOMAPAL® magnetic boards **with glossy surface** are designed to write on with board markers. Writings made with suitable board markers can be wiped dry. The quality of the board markers that is used, has a decisive influence on the cleaning result.

APPLICATION AREAS

Only use indoors and vertically. As horizontal use and use in damp rooms is only possible to a limited extent, we cannot recommend it. You can learn more details from our applications engineering department on request.



NOTE ON BOARD MARKERS

Writings with suitable board markers can be removed dryly. However a cleaning without leaving any residues is generally not guaranteed. Depending on the quality of the used markers or surface finish slight residues can remain visible ("ghost images") which requires - depending on how intensively it is used - a thorough cleaning from time to time. For this thorough cleaning we recommend to use ethyl alcohol, the thinner V100 from EDDING or similar.

Experiences show that quality, age, operating time and storage of the board makers have an enormous impact on the cleaning result. The ratio of mixture of the board marker ink (3 components), being necessary for the dry cleaning, is only guaranteed if the board markers are stored horizontally. Therefore absolutely pay attention to the storage regulations of the manufacturers.

In case problems still arise concerning the dry cleaning of the boards: First of all, we recommend to thoroughly cleaning the surface. Afterwards different types of board markers should be tested.

HOMAPAL® Magnetic boards **with a matt surface which is used to write on with chalk** and the cleaning can be done with water and a sponge. We do not recommend the use of chalk pens.

Magnetic board sanded surface on both sides (8200): The sanded surface of this product/decor offers the customer the opportunity of an individual decoration such as lacquering, veneering, putting another laminate on top or similar. It can for example be used under wallpapers in order to get a magnetic adhering wall surface without changing the general appearance of the room. The way of cleaning these individual surfaces depend on their specific properties. This surface is supplied without a protective foil for production reasons.

PROCESSING INFORMATION:

HOMAPAL® Magnetic boards **cannot** be sawn, drilled or milled as with all standard laminates (HPL) due to the embedded iron foil.



IMPORTANT NOTE

Please note that due to the used material during processing **flying sparks might be produced**. Furthermore, it has to be taken into consideration that with double-sided decorative magnetic boards (elements, compact magnetic board) the laminate must be slitted beforehand on the bottom side in order to make sure that a clean cut is achieved on both sides of the magnetic board.

The resulting cut edges can be sharp. Under certain circumstances small, hot metal chips could arise. It is therefore necessary to wear gloves and safety goggles! When processing always pay attention to the same direction, otherwise there will be changes in the appearance of the boards!

When sawing the magnetic boards in our plant, we achieve the best results with the following parameters:

SAW BLADE (COLD-TIP-CUTTING SAW BLADE AGEFA)

Diameter (mm)	305
Thickness of corpus (mm)	2,2
Thickness in Area of teeth (mm)	1,8
Number of teeth	60

PROCESSING

Speed (U/min)	1500
Forward feed (m/min)	8

When cutting, the decor finish should always be at the top. Sawn or milled edges can be treated with a fine file or sandpaper.

HOMAPAL® Magnetic boards should be used in well air-conditioned rooms. Drying of the surface by too dry room air conditions or direct heat influence should be avoided (risk of cracking). A short-term temperature influence on the laminate up to 60°C is possible.

► SUBSTRATE:

All standard substrates suitable for laminates are also suitable for HOMAPAL® Magnetic boards. It is to be ensured that the moisture content of the substrate is not higher than that of the HOMAPAL® Magnetic board (see storage and conditioning).



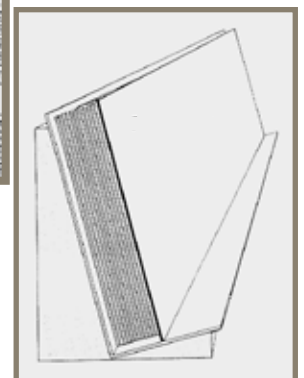
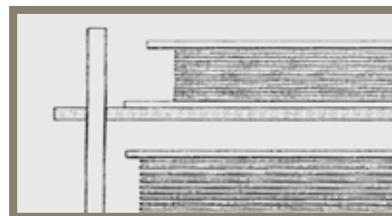
BONDING

Commercially available adhesives and glues such as PVAC glue, two-component adhesives (epoxy) and neoprene contact adhesives are recommended. Exception: Urea bonding adhesives are not suitable. Comply with the manufacturer processing instructions in all cases. Never use water-based adhesives when applying moisture-proof materials. The moisture in the adhesive cannot dissipate and, therefore, the adhesive bond cannot dry.

► STORAGE AND CONDITIONING

As with standard HPL products, HOMAPAL® Magnetic boards must also be stored in a closed storeroom protected against moisture and UV radiation. Storage should be in a standard climate, i.e. approx. 18-25°C and 50-60% relative humidity.

The panel is covered with a protective foil upon completion of the final inspection. **Our protective foil is only a transport protection.** This does not absolve you from a timely incoming inspection (prior inspection of colour, colour uniformity and other quality characteristics of the laminate). The protective foil has to be removed before further processing. The surface protected by the removable protective foil should not be exposed to light for a long time. There is a risk that the foil will become more difficult to remove. (Use top cover!) The protective foil is not impermeable to liquids.



To avoid changes to the adhesive strength of the protective foil on the panel surface, the storage temperature should not deviate from the above specified temperatures by more than ±10°C during longer storage periods. Laminates are to be stored fully supported and horizontal.

If this is not possible, positioning at an incline of approx. 80° with full-surface support and an abutment on the ground to prevent slipping is recommended. The best conditioning is achieved in the room climate of the later area of application. This conditioning is recommended because materials that are processed in an excessively moist condition will tend towards expansion over time, and materials that are too dry will tend towards shrinking. All materials should be conditioned together for at least 48 hours.

Note: Always carry panels flat to avoid bends and cracks in the surface.



BALANCING

Stresses always arise between two different materials that are joined together. Therefore, a substrate must be covered on both sides with materials that are subject to the same dimensional changes under the influence of heat and moisture (conditioning of all materials). This applies in particular if the finished composite panel is to be self-supporting and is not held by a rigid construction. The larger the areas to be covered, the more attention is to be paid to the choice of the backing type, a symmetrical construction and the density and rigidity of the substrate. Our experience shows that substrates of a thickness ≤ 13 mm are critical in terms of the flatness of the composite element.

Fundamentally, factors such as the rigidity and symmetrical construction of the substrate, uniform application of adhesive and press temperature, as well as the size and angle of attachment of the object have an over-proportional influence here. The best results

are always achieved through the use of the same laminate from the same manufacturer on both the front and rear sides. Both sides must always be glued to the substrate with the same running or finish direction on both sides (never at right-angles to each other). To keep costs low, the use of second-choice laminates of the same material, or special backing material without the finish quality of the top layer is recommended. The use of other materials as backing cannot be recommended - even if the physical characteristics are as close as possible to those of HOMAPAL® Magnetic boards - because the results can never be predicted with certainty.

FIRE AND EXPLOSION PROTECTION DATA

IGNITION TEMPERATURE	Approx. 400°C
FLASH POINT	none
THERMAL DECOMPOSITION	Possible above 250°C. Toxic gases (carbon monoxide, carbon dioxide) can be generated depending on the fire conditions (temperature, oxygen content, etc.).
EXTINGUISHING AGENT	HOMAPAL® magnetic laminate has been assigned as Class A. Carbon dioxide, water jet or dry foam can be used to extinguish flames. Breathing apparatus and fire-protection clothing should be worn in the event of a fire.
EXPLOSION HAZARD	Processing, sawing, sanding, milling generates dust of class ST-1. Standard safety precautions and adequate ventilation are to be ensured.
EXPLOSION LIMIT	The dust concentration should be below 30 mg/m ³ .
PROTECTION AGAINST EXPLOSION AND FIRE	HOMAPAL® magnetic laminate should be treated in the same way as wood material in the event of explosions or fire.
STORAGE AND TRANSPORT	HOMAPAL® magnetic laminate is not classified as a hazardous substance for transport. There are no special requirements.
HEALTH ASPECTS	HOMAPAL® magnetic laminate is not classified as being hazardous to people or animals. There is no evidence of toxic or eco-toxic effects. The finish is physiologically harmless.
PENTACHLOROPHENOL	HOMAPAL® magnetic laminate does not contain PCP.
MISCELLANEOUS	HOMAPAL® magnetic laminate is not a hazardous substance within the meaning of the regulation on hazardous substances.

ENVIRONMENTAL AND HEALTH ASPECTS

HOMAPAL® magnetic laminate is a cured and therefore inert thermosetting plastic. There are no migrations that affect food and therefore, contact with food is harmless. The protective melamine layer (except of decor 8231) of the finish is resistant to household solvents and chemicals. The HOMAPAL® magnetic laminates have been tested in accordance with DIN EN 717-1 and fall significantly below - where results were detectable at all - the limit value of the German Chemical Prohibition Regulations and the guideline value of the BGA for interiors.

HOMAPAL® magnetic laminate is a product and not a chemical substance, therefore the REACH Regulation does not apply.

DISPOSAL

HOMAPAL® laminates are not classed as hazardous substances or dangerous goods. Waste can be incinerated in officially approved industrial combustion plants or deposited in controlled landfills, according to local regulations. High pressure laminate waste is classified as "other hardened plastics" i.e., it is similar to domestic waste.

CERTIFICATION AND CLASSIFICATION

Formaldehyde:

The HOMAPAL® magnetic collection is tested for the emission of formaldehyde in accordance with DIN EN 717-1. The results were significantly below the limit value - if detectable at all - stipulated by the German Chemicals Prohibition Ordinance and the German Health Authority for interior spaces.

These specifications are based on our current knowledge and experience. They do not, however, exempt the processor from undertaking his own tests and examinations. A legally binding assurance of the properties or suitability for a specific purpose can not be derived from our specifications. We recommend the use of our technical advice service in the event of doubt. It is the responsibility of the processor of our products to observe any trade mark rights as well as all existing laws and regulations.

Status: August 2020