

HOMAPAL® SRM SCRATCH RESISTANT MATT

TECHNICAL DATA SHEET // METAL DECORS




















	325 SRM Alu Brushed Champagne SRM	401/200 SRM Copper Crush SRM	401/229 SRM Copper Crush Stipple SRM	431 SRM Alu Crossbrushed Natural SRM	434 SRM Alu Crossbrushed Goldtone SRM
Sheet-Size a: 2440 x 1220 mm b: 3050 x 1220 mm	a, b	a, b	a, b	a,b	a,b
Net-Format	-0,5 mm	-0,5 mm	-0,5 mm	-0,5 mm	-0,5 mm
Thickness	1,0	1,3	1,3	1,0	1,0
Weight [kg/m²]	1,5	2,1	2,1	1,5	1,5
Surface Material: Finish:	Aluminium UV-Laquer	Copper UV-Laquer	Copper UV-Laquer	Aluminium UV-Laquer	Aluminium UV-Laquer
Balancing	001 SRM or front decor	009 SRM or front decor	009 SRM or front decor	001 SRM or front decor	001 SRM or front decor
Tolerances Thickness: Length: Width: Flatness:	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 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. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²
Max. Temperature in use	80° C (short-term)	80° C (short-term)	80° C (short-term)	80° C (short-term)	80° C (short-term)
Light fastness (EN 438-2:2019, section 27)	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4
Rollable	not possible	not possible	not possible	not possible	not possible
Resistance to staining (EN 438-2:2019, section 26): Group 1 und 2: Group 3	5 4	5 4	5 4	5 4	5 4
Resistance to scratching (EN 438-2:2019, section 25):	Grade 3	Grade 3	Grade 3	Grade 3	Grade 3
Resistance to surface wear (EN 438-2:2019, section 10): Revolutions (min.) Initial abrasion point	>150	>150	>150	>150	>150

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	439 SRM Alu Crossbrushed Brownish Grey SRM	441 SRM Alu Brushed Natural SRM	442 SRM Alu Brushed Goldtone SRM	444N SRM Alu Brushed Natural SRM	446 SRM Alu Brushed Steeltone SRM
	Sheet-Size a: 2440 x 1220 mm b: 3050 x 1220 mm				
	a, b	a, b	a, b	a,b	a,b
	Net-Format				
	-0,5 mm	-0,5 mm	-0,5 mm	-0,5 mm	-0,5 mm
	Thickness				
	1,0	1,0	1,0	1,0	1,0
	Weight [kg/m²]				
	1,5	1,4	1,4	1,5	1,4
	Surface Material: Finish:				
	Aluminium UV-Laquer	Aluminium UV-Laquer	Aluminium UV-Laquer	Aluminium UV-Laquer	Aluminium UV-Laquer
	Balancing				
	001 SR or front decor	001 SR or front decor	001 SR or front decor	001 SR or front decor	001 SR or front decor
	Tolerances				
	Thickness: Length: Width: Flatness:	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 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. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²
	Max. Temperature in use				
	80° C (short-term)	80° C (short-term)	80° C (short-term)	80° C (short-term)	80° C (short-term)
	Light fastness (EN 438-2:2019, section 27)				
	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4
	Rollable				
	not possible	not possible	not possible	not possible	not possible
Resistance to staining (EN 438-2:2019, section 26):					
Group 1 und 2:	5	5	5	5	5
Group 3	4	4	4	4	4
Resistance to scratching (EN 438-2:2019, section 25):					
	Grade 3	Grade 3	Grade 3	Grade 3	Grade 3
Resistance to surface wear (EN 438-2:2019, section 10): Revolutions (min.) Initial abrasion point					
	>150	>150	>150	>150	>150

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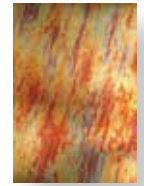


	447 SRM Alu Brushed Coppertone SRM	451 SRM Alu Brushed Bronzeton SRM	454 SRM Alu Brushed Rosé Gold SRM	455/000 SRM Alu Brushed Graphite SRM	456 SRM Alu Brushed Medium Bronzeton SRM
Sheet-Size a: 2440 x 1220 mm b: 3050 x 1220 mm	a, b	a, b	a, b	a,b	a,b
Net-Format	-0,5 mm	-0,5 mm	-0,5 mm	-0,5 mm	-0,5 mm
Thickness	1,0	1,0	1,0	1,0	1,0
Weight [kg/m²]	1,4	1,4	1,4	1,4	1,4
Surface Material: Finish:	Aluminium UV lacquer	Aluminium UV lacquer	Aluminium UV lacquer	Aluminium UV lacquer	Aluminium UV lacquer
Balancing	001 SR or frontdecor	001 SR or frontdecor	001 SR or frontdecor	001 SR or frontdecor	001 SR or frontdecor
Tolerances Thickness: Length: Width: Flatness:	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 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. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²
Max. Temperature in use	80° C (short-term)	80° C (short-term)	80° C (short-term)	80° C (short-term)	80° C (short-term)
Light fastness (EN 438-2:2019, section 27)	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4
Rollable	no	no	no	no	no
Resistance to staining (EN 438-2:2019, section 26): Group 1 und 2: Group 3	5 4	5 4	5 4	5 4	5 4
Resistance to scratching (EN 438-2:2019, section 25):	Grade 3	Grade 3	Grade 3	Grade 3	Grad 3
Resistance to surface wear (EN 438-2:2019, section 10): Revolutions (min.) Initial abrasion point	>150	>150	>150	>150	>150



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	490 SRM Copper Antique SRM	500/340 SRM Brass Diamond Antique' SRM	682 SRM Alu Satin Steelstone SRM	690/340 SRM Copper Diamond Antique SRM	695D SRM Copper Stratos Diagonal SRM
Sheet-Size a: 2440 x 1220 mm b: 3050 x 1220 mm	a, b	a, b	a, b	a,b	a,b
Net-Format	-0,5 mm	-0,5 mm	-0,5 mm	-0,5 mm	-0,5 mm
Thickness	1,3	1,3	1,0	1,3	1,3
Weight [kg/m²]	2,1	2,0	1,7	2,0	2,1
Surface Material: Finish:	Copper UV-Laquer	Brass UV-Laquer	Aluminium UV-Laquer	Copper UV-Laquer	Copper UV-Laquer
Balancing	009 SR or front decor	009 SR or front decor	001 SR or front decor	009 SR or front decor	009 SR or front decor
Tolerances Thickness: Length: Width: Flatness:	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 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. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²
Max. Temperature in use	80° C (short-term)	80° C (short-term)	80° C (short-term)	80° C (short-term)	80° C (short-term)
Light fastness (EN 438-2:2019, section 27)	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4	Grey scale min. 4	Grey scale min. 3
Rollable	not possible	not possible	not possible	not possible	not possible
Resistance to staining (EN 438-2:2019, section 26): Gruppe 1 und 2: Gruppe 3	 5 4	 5 4	 5 4	 5 4	 5 4
Resistance to scratching (EN 438-2:2019, section 25):	Grade 3	Grade 3	Grade 3	Grade 3	Grade 3
Resistance to surface wear (EN 438-2:2019, section 10): Revolutions (min.) Initial abrasion point	>150	>150	>150	>150	>150



	800/200 SRM Alu Crush SRM	820/000 SRM Alu Softmatt Natural SRM
Sheet-Size a: 2440 x 1220 mm b: 3050 x 1220 mm	a, b	a, b
Net-Format	-0,5 mm	-0,5 mm
Thickness	1,0	0,8
Weight [kg/m²]	1,7	1,3
Surface Material: Finish:	Aluminium UV-Laquer	Aluminium UV-Laquer
Balancing	001 SR or front decor	001 SR or front decor
Tolerances Thickness: Length: Width: Flatness:	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m	±0,15 mm +100 mm/ -0 mm +100 mm/ -0 mm ≤ 100 mm/m
Postforming	not possible	not possible
Processing	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²	at max. temperature of 60° C and max. pres- sure of 0,3 N/mm²
Max. Temperature in use	80° C (short-term)	80° C (short-term)
Light fastness (EN 438- 2:2019, section 27)	Grey scale min. 4	Grey scale min. 4
Rollable	not possible	not possible
Resistance to staining (EN 438-2:2019, section 26):		
Group 1 und 2:	5	5
Group 3	4	4
Resistance to scratching (EN 438-2:2019, section 25):	Grade 3	Grade 3
Resistance to surface wear (EN 438-2:2019, section 10): Revolutions (min.) Initial abrasion point	>150	>150

¹ vertical joint at abt. 610 mm

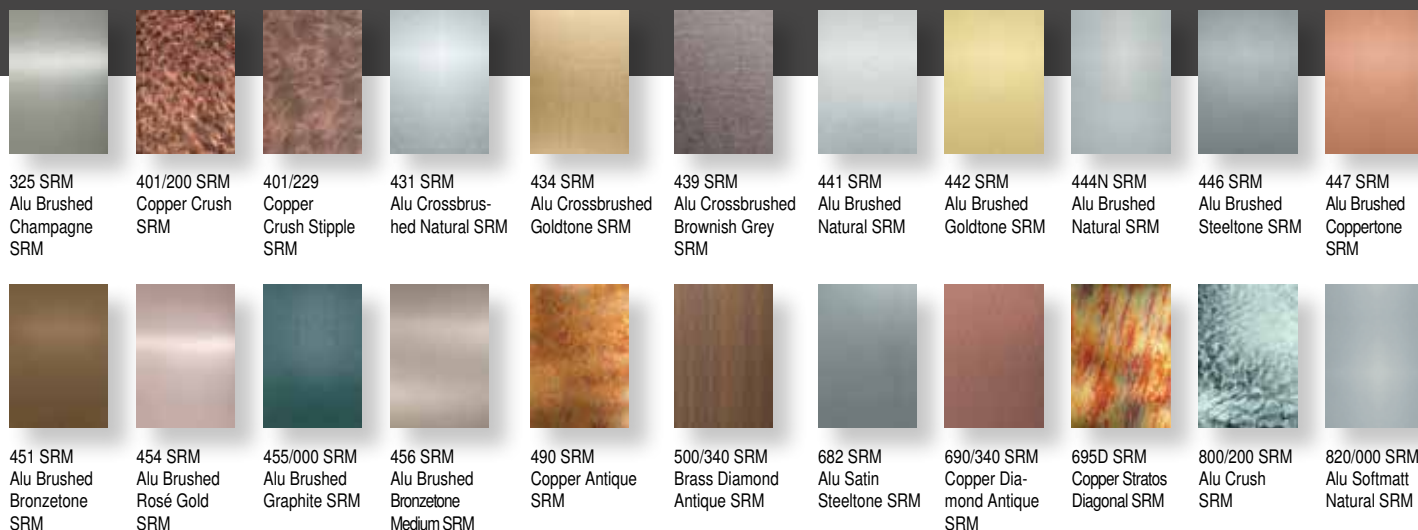
APPLICATION AREAS

Only use indoors, vertically and horizontally. The use in wetrooms is only possible to a limited extent, we cannot recommend it. The SRM lacquering provides properties to the surface according EN 438-Part-3:2016 (HGS) regarding to resistance to scratching (test 25, grade 3), resistance to surface wear (test 10, grade 3, initial abrasion point 150) and resistance to staining (test 26).



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GENERAL INFORMATION

HOMAPAL® SRM is a decorative laminate with a surface material consisting of a thin metal layer. The metal layer is protected by a thin UV-laquer finish.

Note:

The kraft paper core layers are impregnated with phenol-formaldehyde resin. The HOMAPAL® SRM metal laminate consists of approx. 55% paper, 25% phenol-formaldehyde resin and 20% metal foil. 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® SRM metal laminate is manufactured under the simultaneous application of heat (> 120°C) and a high specific pressure (> 5 MPa).

batch together (recognisable by the production date on the protective foil).

SUBSTRATE:

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



GLUEING

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.

NOTE HANDCRAFTED DECORS

The HOMAPAL® copper and brass laminates SRM are hand-designed decors. Each plate is unique. Due to the high proportion of manual work, only decors of a production lot (recognizable by the production date on the protective foil) should be processed together.

!!! IMPORTANT INFORMATION ON HOMAPAL® SRM-DECOR PROCESSING !!!

It is absolutely essential to make sure you keep everything completely clean when gluing HOMAPAL® SRM metal laminates onto appropriate support panels. Particularly when using a block press, it is important to ensure that no dust or chip residue adheres to the undersides and backs of the composite panels as otherwise you could end up with white markings on the lacquer surface. If, for example, the surface of the press is soiled by dried glue adhesions, we recommend using an insert (e.g., an MDF or HDF panel) to avoid marking. So far, this issue has been particularly critical when the laminates were cut to size before pressing and then not adequately cleaned. To minimise this problem, HOMAPAL® SRM decors should only be processed with protective foil.



CARE / CLEANING

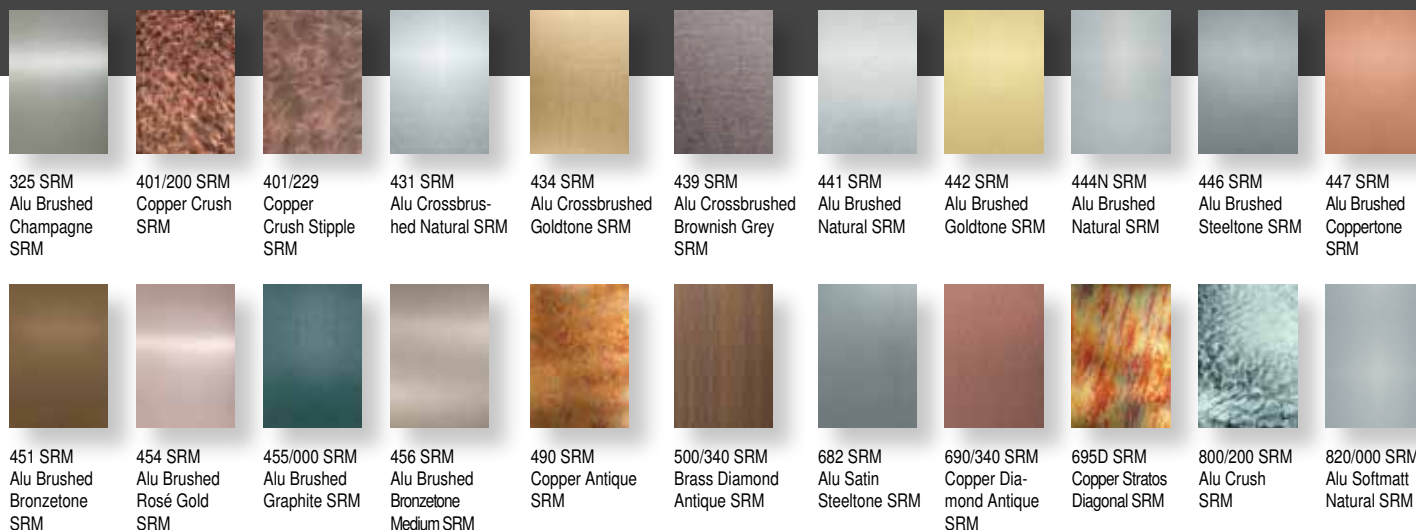
A soft, lint-free cloth and a mild cleaning agent should always be used for cleaning. Strongly alkaline, strongly acidic, or cleaning agents with abrasive components must not be used. Alternative cleaning agents should only be used after consultation with HOMAPAL Application Technology.

PROCESSING INFORMATION:

HOMAPAL® SRM metal laminates can be sawn, drilled and milled the same as all other decorative high pressure laminates (HPL), but we recommend using carbide-tipped cutting tools. Experience shows that the best results are achieved using sharp or freshly ground saw blades / tools. For best results see our detailed processing information sheet. We recommend testing the cut quality by cutting a sample beforehand. The usual safety regulations regarding dust extraction and fire protection must be observed when processing and working with laminates. So make sure you are wearing gloves and safety glasses! We would like to point out that some of the laminates have very sharp edges. Please take all necessary safety precautions. Precautions should be taken to avoid dust during processing and local regulations should be observed. When processing the laminate, always ensure you are working in the same running direction, otherwise there will be changes in appearance! When cutting to size, make sure that the decorative surface is always on top. Due to specific technical characteristics of the production process, the appearance of metal laminates may vary slightly. This is unavoidable. We always recommend only using decors from the same

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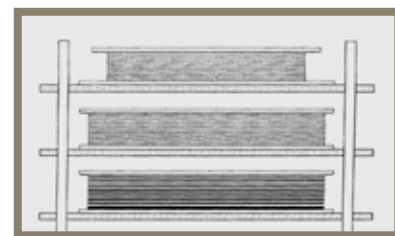
STORAGE AND CONDITIONING

As with standard HPL products, HOMAPAL® SRM metal laminate 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.

In contrast to our metal laminates without SRM (Scratch Resistant Matte) coating, HOMAPAL® SRM decors are recommended to leave the protective foil on the surface during processing. This does not absolve you from a timely incoming inspection (prior inspection of colour, colour uniformity and other quality characteristics of the laminate). 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 $\pm 10^{\circ}\text{C}$ 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 appliance 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® Metal laminate - because the results can never be predicted with certainty.

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FIRE AND EXPLOSION PROTECTION DATA

IGNITION TEMPERATURE	Approximately 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.).
FLAMMABILITY	HOMAPAL® SRM metal laminate classified as being of normal flammability.
EXTINGUISHING AGENT	HOMAPAL® SRM metal 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/m³.
PROTECTION AGAINST FIRE AND EXPLOSION	HOMAPAL® SRM metal laminate should be treated in the same way as wood material in the event of explosions or fire.
STORAGE AND TRANSPORT	HOMAPAL® SRM metal laminate is not classified as a hazardous substance for transport. There are no special requirements.
HEALTH ASPECTS	HOMAPAL® SRM metal 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® SRM metal laminate does not contain PCP.
MISCELLANEOUS	HOMAPAL® SRM metal laminate is not a hazardous substance within the meaning of the regulation on hazardous substances.

HOMAPAL LAMINATE IN THE EVENT OF FIRE

HOMAPAL® SRM metal laminate: As with any other material, in the event of incomplete combustion the smoke may contain toxic substances.

The same fire-fighting techniques can be used on fires involving HOMAPAL® SRM metal laminates that are used on wood-based building materials.

ENVIRONMENTAL AND HEALTH ASPECTS

HOMAPAL® SRM metal laminate is a cured and therefore inert thermosetting plastic with a lacquered, closed and hygienic metal foil. HOMAPAL® SRM metal laminate is a product and not a chemical substance, therefore the REACH Regulation does not apply.

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: May 2021