

# **SWISS KRONO HPL BE.VELVET *antifingerprint***

## 1. Product description

SWISS KRONO HPL (High Pressure Laminate) - is a material for refining the surface of panels. The HPL production process involves pressing together several layers of core paper and decorative paper previously impregnated with thermosetting resins.

Surfaces made of SWISS KRONO HPL BE.VELVET *antifingerprint* are characterized by their softness and velvety feel due to the special EM structure. The use of the EM structure gives the surface a deep matte finish and at the same time a high resistance to fingerprint dirt. SWISS KRONO HPL BE.VELVET is a natural product derived from renewable raw materials, consisting of almost 70% wood converted into paper. SWISS KRONO HPL BE.VELVET *antifingerprint* meets the requirements of EN 438 - 3.

## 2. Use

SWISS KRONO HPL BE.VELVET *antifingerprint* is produced in accordance with the classification and typical use system contained in EN 438-3, tab. 3. It belongs to the Horizontal General-purpose Standard (HGS) group. This means that these laminates can be used horizontally and are not subject to postforming.

The individual letters stand for:

- H - **H**orizontal use
- G - **G**eneral purpose
- S - **S**tandard

SWISS KRONO HPL BE.VELVET *antifingerprint* laminate is used in:

- door manufacturing,
- furniture manufacturing,

For use in the following areas:

- in stores,
- in kitchens,
- in restaurants,
- in schools,
- in hotels,
- in hospitals,
- in doctors' offices,
- in pharmacies,
- in sports centers,
- in gymnasiums,
- in locker rooms,
- in elevators,
- in laboratories.

**NOTE!**

The surface of SWISS KRONO HPL BE.VELVET *antifingerprint* laminates is smooth and uniform. We do not recommend their use for finishing work surfaces that require intensive and frequent cleaning from dirt that can: irretrievably change the degree of "gloss", (so called "brightening effect"), or permanently damage the HPL. On medium and dark decors, signs of use are more visible than on light decors. This does not involve changes in the functionality of the surface, it only affects its visual aspects.

### 3. Technical data

#### 3.a. Construction

SWISS KRONO HPL BE.VELVET *antifingerprint* consists of several layers of papers, prepared differently for production:

**1. DECORATIVE LAYER** - paper impregnated with thermosetting resin.

**2. CORE** - paper impregnated with thermosetting resin; the core may consist of multiple layers of such paper. The bottom side of the HPL is sanded, allowing it to be glued onto carrier boards.



**Figure 1.** Construction of SWISS KRONO HPL BE.VELVET *antifingerprint*

### 3.b. Parameters

SWISS KRONO HPL BE.VELVET *antifingerprint* laminates meet the requirements defined in EN 438-3.

**Tab. 1. Technical and performance properties of laminates in HGS types. General Requirements.**

Property	Unit of measurement	Requirement	Test method
Thickness tolerance	mm	0,5 - 0,8 mm $\pm$ 0.10	EN 438-2.5
Length tolerance	mm	+10 / - 0	EN 438-2.6
Width tolerance	mm	+10 / - 0	EN 438-2.6
Scratch resistance	N	$\geq$ 3	EN 438-2.25
Abrasion resistance	rotation	IP $\geq$ 150, IP + FP/2 $\geq$ 350	EN 438-2.10
Impact resistance (Small diameter ball)	N	$\geq$ 20	EN 438-2.20
Flatness tolerance	mm/m	$\leq$ 60	EN 438-2.9
Edge straightness tolerance	mm/m	$\leq$ 1.5	EN 438-2.7
Squareness tolerance	mm/m	$\leq$ 1.5	EN 438-2.8
Density	g/cm <sup>3</sup>	$\geq$ 1.35	EN 1183-1:2004
Stain resistance	degree	group 1 and 2 = 5 group 3 $\geq$ 4	EN 438-2.26
Light resistance (xenon lamp)	Gray scale	$\geq$ 4	EN 438-2.27
Resistance to hot pot base (160°C)	degree	glossy surface $\geq$ 3 other surfaces $\geq$ 4	EN 438-2.16
Steam resistance	degree	glossy surface $\geq$ 3 other surfaces $\geq$ 4	EN 438-2.14
Formaldehyde emissions		Class E1	

### 3.c. Maintenance

Due to its structure and properties, SWISS KRONO HPL BE.VELVET *antifingerprint* does not require any special form of maintenance. The frequency of cleaning must be adapted to the area of application and the degree of dirt. For cleaning, care and maintenance of SWISS KRONO HPL BE.VELVET *antifingerprint* laminates, always use a clean, gentle and soft cotton cloth soaked in water. Larger dirt can be removed with a solution of dishwashing liquid. Then to get a smooth surface without streaks wipe with a damp, soft cloth and wipe dry.

Cleaning cloths and sponges that are too coarse can (with too much rubbing or scrubbing) leave glossy marks (known as the "brightening effect"), which can permanently damage the surface.

Do not use aggressive cleaners and detergents containing abrasive components because their use may lead to a change in the degree of gloss and/or the formation of scratches on the material. Lubricants, used in some plastic cleaners, for example, also contribute to changes in gloss levels. In order to preserve the anti-fingerprint properties, they should be thoroughly removed from the surface. The rule of thumb for proper care of products with matte surfaces, is regular cleaning as soon as they get dirty.

SWISS KRONO HPL BE.VELVET *antifingerprint* is resistant to most substances that can cause stains, such as milk, tea, coffee, wine, syrups. Despite such high performance of HPL laminate, it is recommended to remove residues of the mentioned products from the surface, as soon as they become dirty. Special attention should be paid to such products as berry juice, red beet juice and tomato paste.

## 4. Packaging, storage and transportation

SWISS KRONO HPL BE.VELVET *antifingerprint* laminates come with a protective film to ensure surface protection during transport and processing. The protective film should be removed immediately after processing the laminate, but no later than 6 months from the date of delivery to the customer.

SWISS KRONO HPL BE.VELVET *antifingerprint* laminates can be produced in sheets or rolls.

**HPL in sheets:**

**HPL format available as a standard**

Length mm	Width: mm	Thickness mm
2810	2080	0.6
3050	1320	0.8

**HPL formats available on request**

Length range mm	Width range mm	Thickness range mm
500 - 5600	630 - 1320	0.5 - 0.8
500 - 5600	2080	0.5 - 0.8

**HPL in rolls:**

**HPL formats available on request**

Maximum roll diameter mm	Core diameter mm	Width: mm	Thickness range mm
400	150	1300	0.5 - 0.6
400	150	2060	0.5 - 0.6

#### **4.a. Storage of SWISS KRONO HPL BE.VELVET antifingerprint in sheets**

- SWISS KRONO HPL BE.VELVET *antifingerprint* should be laid out and stored on a flat, rigid and stable surface.
- The shelf surface should be larger than the laminate sheets.
- The top, last sheet in the stack should be laid with the decorative layer down and covered all over with a cover board.
- In the stack, between the sheets, there should be no dirt that can damage the surface of the laminates.
- Individual sheets can be rolled up, decorative side inward.
- SWISS KRONO HPL BE.VELVET *antifingerprint* laminates should be stored indoors and covered, in a place protected from moisture.
- Care should be taken when handling and transporting laminate sheets to avoid damage.
- There should be an information label on each stack.



#### **4.b. Storage of SWISS KRONO HPL BE.VELVET antifingerprint in rolls**

- SWISS KRONO HPL BE.VELVET *antifingerprint* should be laid out and stored on a flat, rigid and stable surface.
- The rolls should be placed on a pallet, with a maximum of 6 pieces in pyramid form (narrow format), or flat with 4 pieces (wide format).
- The whole should be fastened together with banding tape to prevent the material from moving in transit.

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- In the stack, between the rolls, there should be no dirt that can scratch the surface of the laminates.
- SWISS KRONO HPL BE.VELVET *antifingerprint* should be stored indoors and covered, in a place protected from moisture.
- Care should be taken when handling and transporting laminates to avoid damage.
- There should be an information label on each roll.



SWISS KRONO HPL BE.VELVET *antifingerprint* laminates should always be stored in a closed, dry warehouse, at a temperature of not less than 18°C and not more than 25°C, humidity of 50-60%, for a maximum period of 6 months.

## **5. Waste disposal**

### **5.a. Energy recovery**

SWISS KRONO HPL laminates can be thermally recycled. When HPL laminates burn completely at 700 °C, water, carbon dioxide and nitrogen oxides are produced. Well-controlled combustion processes are achieved in modern, officially approved industrial incinerators. Ashes from this process can be delivered to controlled waste disposal sites.

### **5.b. Landfills**

Unusable residues of SWISS KRONO HPL laminates should be delivered to controlled waste disposal sites in accordance with current national and/or regional regulations.

## **6. Certificates and licenses**

- Hygienic certificate - confirms class E1
- Certified for antibacterial properties