

Forner® Velvet ultra matt® standard technical data

Forner® Velvet ultra matt® standard are furniture boards for indoor use on vertical surfaces. They are manufactured on an MDF or particleboard base, covered on both sides with a TU film with an innovative UV matt lacquered surface with scratch resistance and ease of cleaning. On request, the boards are available in a one-sided version (polypropylene counter-pressure laminate on the other side). Forner® Velvet ultra matt® standard boards are manufactured using only water-resistant PUR adhesive.

Properties	Value	Unit
General properties		
Thickness tolerance relative to nominal value	± 1*	mm
Thickness tolerance within the board	$t_{max} - t_{min} \leq 0,6$	mm
Length tolerance	± 10	mm
Width tolerance	± 10	mm
Flatness	≤ 2	mm/m
Edge Damage: 4 Sides	< 10	mm

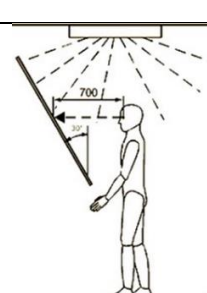
* depends on components

Properties	Test method	Values	Unit
Chipboard core properties			
Thickness		16 - 20	
Density	EN 323	650	kg/m ³
Internal Bond	EN 319	0,35	N/mm ²
Bending Strength	EN 310	11	N/mm ²
Surface soundness	EN 311	0,8	N/mm ²
Formaldehyde emission E1	EN 717-1	E1	Class
Moisture Content	EN 322	5 - 13	%
Length width tolerance	EN 324-1	± 5 mm	mm
Straightness tolerance	EN 324-2	1,5	mm/m
Thickness tolerance	EN 324-1	± 0,3	mm

Properties	Test method	Value		Unit
MDF core properties				
Thickness		>12 - 19	>19 - 22	mm
Density	EN 323	≥ 720	≥ 720	kg/m ³
Internal Bond	EN 319	≥ 0,55	≥ 0,55	N/mm ²
Bending Strength	EN 310	≥ 20	≥ 18	N/mm ²
Swelling 24h	EN 317	≤ 12	≤ 10	%
Formaldehyde emission E1	EN 717-1	≤ 0,1		ppm
Formaldehyde emission E1	EN 16516	≤ 0,1		ppm
Formaldehyde emission E1	EN ISO 12460-5	≤ 5,0		mg/100g
Moisture Content	EN 322	4 - 11		%
Length width tolerance	EN 324-1	± 2 (max. ± 5)		mm
Straightness tolerance	EN 324-2	1,5		mm/m
Squareness tolerance	EN 324-2	2		mm/m
Thickness tolerance	EN 324-1	± 0,2	± 0,3	mm

Properties	Test method	Values	Unit
Surface properties			
Dimensional stability temperature (100 °C)	Internal method according to ASTM D 1204	Long. < - 7	%
		Trans. +/- 2	
Tensile strength	MTD 001 according to ISO R527-3	Long. > 40	MPa/m ²
Elongation at break	MTD 001 according to ISO R527-3	Long. > 50	%
Scratch resistance	UNI EN 438/25	3	
Hoffman Scratch		5	N
Heat resistance of the embossing (100 °C)	ALFA AW100 condition: T= 100°C x 10 min in AIR	no visible changes	
Stains resistance	UNI EN 12720	5	
detergent resistance	COSMOB (Internal method)	5	
Light resistance	UNI EN 4892-2:2013 except part 5, use method B (indoor)	5	grey scale
Wear resistance	UNI EN 438/10	4	
Gloss 60°	ALFA AW A16/10 ± 1 gloss	3	gloss
Color (light colors)	CIELAB	ΔE max 0,8	
		ΔL ± 0,50	
		Δa ± 0,30	
		Δb ± 0,40	
Color (dark colors)		ΔE max 1,00	
		ΔL ± 0,70	
		Δa ± 0,60	
		Δb ± 0,60	
Thickness	ALFA 1	200 - 350 ± 7%	μm
Width	depending on order	± 2	mm
Density	DIN 53479 (depending on the shade color)	1,33 - 1,42	

Properties	Test method	Value	Unit
PP Surface properties			
Thickness	PN-ISO 4593	160 - 400 ± 5%	μm
Tensile strength at break PP3-PP10	PN-ISO 6383	long. > 30 trans: > 90	N/mm
Tensile strength at break PP1-PP2	DIN EN ISO 527-1;3	long.: 40 trans: 29	N/mm ²
tensile strength PP3-PP10	PN-EN ISO 527	long: > 16 trans.: > 12	MPa
Elongation at break PP3-PP10	PN-EN ISO 527	> 300	%
Elongation at break PP1-PP2		> 635	%

Surface quality	
<p>Due to technological limitations, it is not possible to produce a completely flawless surface. Minor defects and irregularities are acceptable. A surface defect is defined as a defect greater than greater than 1.0mm² and recognized when examining the surface at a distance of 0.7meters and an angle of view of about 30°. The defined maximum is 2 defect/m². The evaluation of the board should take place under daylight or artificial lighting D 65: 6500 K and lighting intensity: 1000 – 2000 lx. Maximum observation time is 20 seconds.</p>	

Storage and handling

The boards should only be transported flat, on a pallet or on wooden profiles.

The material must be stored in closed, heated rooms in temperature between 15 and 25 °C and the relative humidity between 40 and 60%, on the original pallet or with 4 timber battens and not exposed to direct sunlight. To prevent contamination, uneven temperature/humidity effects and surface damage, use protective foam between the boards and spacer boards at the bottom and top of the pallet.

To prevent contamination, uneven temperature/humidity effects and surface damage, use protective foam between the boards and spacer boards at the bottom and top of the stack.

Before processing the goods must have an acclimatization period at room temperature of at least 48 hours or longer depending on the season.

"The boards can be processed with most approved woodworking tools. Tools need to be sharp. When cutting, a saw blade should be used.

Testing is recommended before production begins to determine optimal machine settings."

Intensive and metallic colors should be process and install in one direction. Installation upside down may cause different optical impression of the color.

Cleaning

For cleaning, we recommend cloth with soapy water or detergent for domestic use. For best cleaning results, use a microfiber cloth. Avoid spraying products directly onto the surface as this can leave stains and marks. After cleaning with a damp cloth, wiping dry is recommended to remove moisture. Do not use paper towels, abrasive products, bleach, highly chlorinated products or acids. Before using a cleaner, test on a small, invisible part of the surface. Steam cleaners or high-pressure washers are not suitable for cleaning.

Dirt need to be removed as quickly as possible. Do not allow stains to dry on the surface.