

# ACRYLUX MATTE / MATTE METALLIC



## TECHNICAL SPECIFICATIONS



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## Acrylux furniture panels with super-matte surface.

Sheets of matte, co-extruded ABS/PMMA laminate, 0.5-0.7 mm thick (color dependent), are laminated to the board with (in accordance with customer choice):

- (1) Raw MDF backside coated with white, 0.45 mm thick HIPS laminate
- (2) Raw MDF backside coated with white 0.2 mm thick PP laminate
- (3) Double-sided White melamine MDF (Premium variant)
- (4) White lacquered MDF single-sided (ECO variant)\*\*

\* other colors available by request

\*\* do not use in places with high humidity.

The hydrophobic laminate surface is characterized by high resistance to oily stains and fingerprints,. The maximum width and length of the panel is 1300 mm and 2800 mm respectively. The Acrylux Mat (AM1800) laminate coating has high resistance to chemical agents, scratches, and UV radiation. The panels are also covered with a protective foil which significantly reduces the probability of damage during production and assembly of furniture elements.

### Standard Dimensions:

	Dimensions			
	(1)	(2)	(3)	(4)
<b>Panel Variant</b>	MDF + Hips	MDF+ PP	melamine MDF	Lacquer MDF
<b>Dimensions</b>	2800 x 1300 mm*	2800x1300 mm*	2800x1300 mm*	2800x1300 / 2800x1250 mm*
<b>Substrate Thickness</b>	17 / 18 mm	17 / 18 mm	18 mm	16 / 18 mm
<b>Acrylic Sheet Thickness</b>	0,5 - 0,7 mm Dependent on color and protective foil thickness			

\*Colors 8856 Olive Metallic, 8857 Brass, 8858 Graphite Metallic, 8859 Antique Gold – are available in the format 2800 x 1240

Other dimensions available by request.

### Acrylic Laminate Properties – Solid Colors 0.5mm:

Property	Test Standard	Unit	Clase/ Value
Density	ISO 1183-1	g/cm <sup>3</sup>	≥1.07≤1.11
Scratch Resistance	DIN 68861/T4	N	>2 Group 4B
Steel Wool Abrasion Resistance	QPA-25-LT	Pressure: 1 kg Rotation number: 20 Steel Wool Type : 00	Class1 No visible changes or scratches
Gloss	DIN 67530 at an angle of 60°	GLE	<5
Light Resistance (Resistance to atmospheric conditions Delta E of furniture panels - interior applications)	EN ISO 4892-2 Complete Color change after 200h Xenon Test		DE* <1,7
Temperature Resistance (Dry Test)	DIN EN 68861 T7	Temperature [°C]	7D, 75°C
Temperature Resistance (Wet Test)	DIN EN 68861 T8	Temperature [°C]	8B, 70 °C
Fire Rating	UL 94		n.d.
Water Vapor Resistance	AMK		No visible changes
Chemical Resistance	DIN 68861/T1		Group 1B



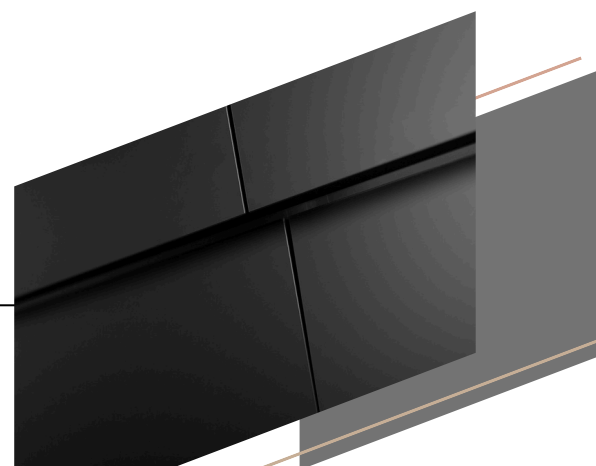
## HIPS Balancing Laminate Properties:

Characteristic	Value	Unit	Test Method
<b>Physical Properties</b>			
Density at 23°C	1,05	g/cm <sup>3</sup>	ISO 1183-1
<b>Mechanical Properties</b>			
Elastic Modulus during stretching at 23°C	2540	Mpa	ISO 527
Elastic limit at 23°C	28	Mpa	ISO 527
Elongation at break at 23°C	24	%	ISO 527
<b>Thermal Properties</b>			
Vicat B/50 , 50N/50K/h	88	°C.	ISO 306
HDT-A , 1,82 Mpa	74	°C.	ISO 75
<b>Optical Properties</b>			
Top Surface Gloss	(Gloss Pattern at 60°)	2,30	Gloss Unit
	(Gloss pattern at 85°)	3,10	Gloss Unit
<b>Fire Resistance</b>			
Fire Rating	Hb		UL94
	Hb		ISO 1210
<b>Other Properties</b>			
Forming Shrinkage	0.5	%	Producer's Internal Testing Method
Thermo-forming temperature range	≥ 120 ≤ 165	°C.	Producer's Internal Testing Method
Tested on the raw materials employed in this product, thickness > 1.6 mm			

## PP Laminate Properties:

Property	Norm	Unit	Specification
Thickness	PN-ISO 4593	mm	215 +/-7%
Width	PN-ISO 4592	mm	50 - 1400 +/- 2
Color		ΔE	≤1,0
Shearing Resistance	PN-ISO 6383	N/mm	w: >30 p:>90
Stretch Resistance	PN-EN ISO 527	Mpa	w:>16 p:>12
Elongation at break	PN-EN ISO 527	%	>300

\*Results apply to laminate without a deep embossed mottle pattern (04). In the case of a deep pattern, the strength parameters are determined on an individual basis. Laminates produced by the Cast method from colored polypropylene result in a single color product. The laminate is designed for indoor use, any deviation from the recommended application should be based on additional tests regarding resistance in the desired conditions.

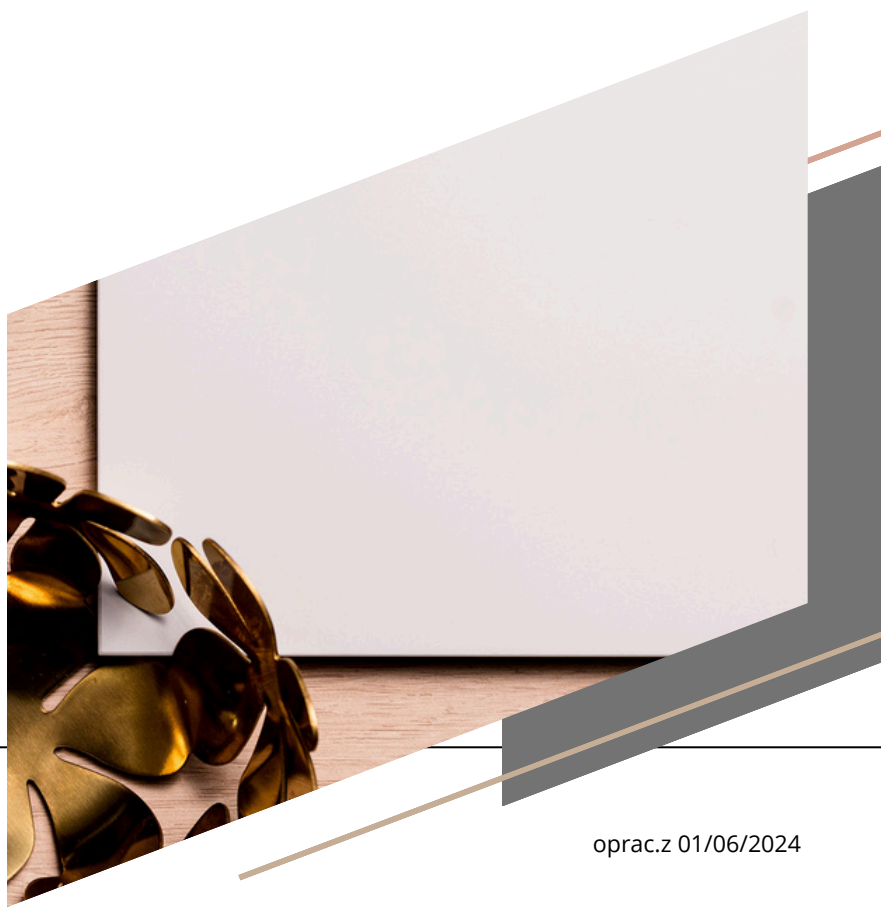


## Board Tolerances:

	Panels		
Substrate Board Dimension	< 15 mm	15 - 20 mm	> 20 mm
Thickness Tolerance	± 0.5 mm		
Length and Width Tolerance	± 5.0 mm		
Length- and Width-wise deformation	inward bending (concavity): 1.5mm/m, outward bending (bulging): 1.5mm/m, panels <16mm thick may have higher deformation values		
Edge Defects	≤ 10 mm From Panel Edge		
Final Product Thickness Tolerance	Nominal Dimension + 0,2mm (foil + Adhesive) ± tolernace		

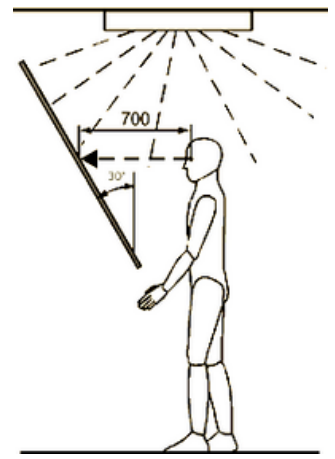
## Surface Properties:

	Panels
Scratches	Listed surface properties are evaluated in accordance with PN EN 14322 and PN EN 438-1 norms
Contrasting Points	
Bubbles, Indentations, particles under f	
Pressure Marks	
Bubbles	Micro scratches, which may be visible in daylight or under halogen lighting, are a result of the high gloss effect and are not considered a defect
<b>Observation distance and light characteristics for quality control in accordance with the current PN EN 14323 standard*</b>	
Color Shade	Slight deviations (within the manufacturer's standard tolerance) may occur as a result of irregularities on the decor paper and the type of substrate used.
	<b>Color Tolerance:</b>
	White and Light Colors: Delta E ≤ 0.5
	Medium Intensity Colors: Delta E ≤ 0.8
	Dark Colors: Delta E ≤ 1.5
<b>Larger Deviations are Permissible with Reflective and Metallic Decors</b>	
Due to the different shape and size of the metallic pigment particles used in the production of the panels, the aperant color can vary from light to dark to iridescent depending on the angle of light and the angle of observation. This is an intentional element of metallic decors and is not grounds for complaint.	
When evaluating colors, the samples should first be subjected to 48h of daylight, due to the photochemical process taking place. This should always be done under the same conditions (same lighting, exposure time, etc.). The tested samples must not be exposed to direct sunlight.	



## Procedure for Product Evaluation:

- Panel position: static, vertical
- Light: fluorescent lamp at 6.500°K (Diffuse light or D65)
- Observation at an angle of 30° at a distance of 0,7 m
- Observation time: max 20 s



Panel evaluation should take place under a diffuse and fixed light source that illuminates the surface uniformly. This can be sunlight or adequate artificial lighting (between 2000-5000 lux). The approximate distance between the assessed surface and light source should be 1,5m. Surface defects will only be acknowledged if they are larger than 0,8mm<sup>2</sup> and visible from a distance of 0,7m at a viewing angle of approximately 45°.

It is within tolerance for 3% of a given shipment to have defects exceeding the standards given above, and does not constitute grounds for a claim. This tolerance is in accordance with the European standards for chipboard and MDF manufacturers. For technical reasons, deliveries have a permitted quantity tolerance of +/- 10%

General Information: The product is intended for use as a decorative material in interior design and furniture making. It should only be used in dry places. The boards must be transported and stored with the proper precautions. If necessary, they can be stored on top of each other on a level and horizontal surface in a dry place. The boards should be stored indoors to protect them from swelling and deformation caused by moisture. The boards should not be stored at temperatures below 15°C for long periods of time, as this may cause irreparable damage. The relative humidity of storage should be between 45% and 65%. Before processing, boards should be acclimated by storage for a period of min. 48h and under suitable conditions (temperature of 18-22 C and humidity of 30%-65%). Processing should also take place at room temperature. It should be noted that, especially in the colder periods of the year, it is necessary to acclimatize all boards. If, due to the number of boards in a stack, there is a risk of insufficient acclimatization of boards in the middle of the stack, the acclimatization period should be extended accordingly.

Fronts made by Niemann Polska boards can be used in places with increased humidity if:

- \* were produced using sharp saws and cutters and PUR glue was used for edge banding
- \* if they were installed in accordance with documents and in the case of places particularly exposed to hot steam (fronts near the hood, oven, dishwasher) it was done in accordance with the recommendations of household appliances manufacturers
- \* if used as intended and under the conditions described in the technical data sheet

If the above conditions are not met, the fronts may be irreversibly damaged.