SPECTRUM HIGH GLOSS

TECHNICAL SPECIFICATIONS

Spectrum furniture panels with a high gloss surface.

A 75µ-thick transparent polyester laminate is applied to melamine-coated MDF or particleboard. The gloss level of the finished product is >85 gloss.

The coating is resistant to UV radiation, scratches and chemical agents. The boards are additionally covered with a protective film, which significantly reduces the likelihood of damage during production and assembly of furniture elements.
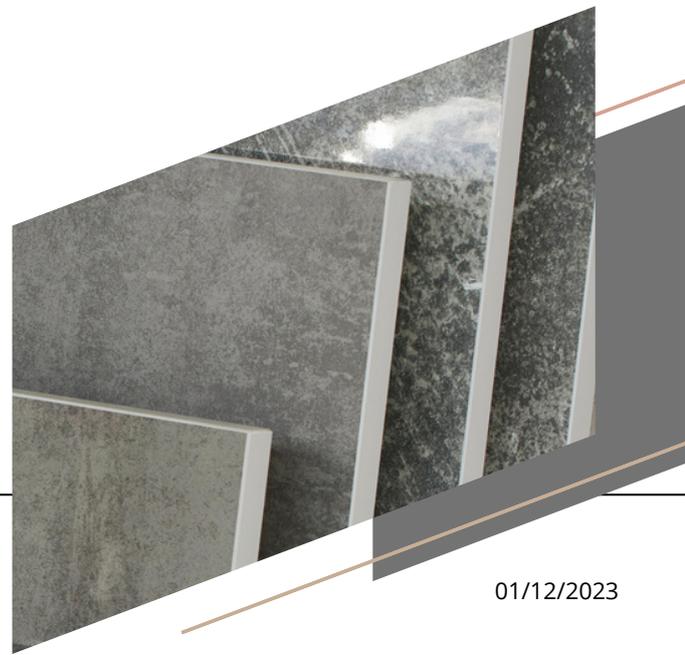
Standard Dimensions:

	Dimension			
	(1)	(2)	(3)	(4)
Panel Variant	MDF/Chipboard			
Panel Dimensions	2800 x 1300 mm	3050x1220 mm	2800x1270 mm	2070X1300 mm
Substrate Thickness	8 - 48 mm			
PET Laminate Thickness	75µ + protective foil thickness			

Other Dimensions available by request.

PET Laminate Properties:

Tested Property	Testing Standard	Unit	Class/ Value
Chemical Agent Resistance	DIN EN 68861 T1	Level	1B
Wear Resistance	DIN EN 68861 T2	Rotation Count	2A,>650 Um
Scratch Resistance	DIN EN 68861 T2	Level (N)	4E to 0.9N
High Temperature Resistance (Dry Test)	DIN EN 68861 T7	Temperature [°C]	7A, 180°C
High Temperature Resistance (Wet Test)	DIN EN 68861 T8	Temperature [°C]	8A, 100 °C
Light Resistance	EN 438-2	Grey Scale	4 - 5
		Blue Scale	6
Graphite Test	LGA RL 33051	Level	5
Micro-Scratching	Based on DIN EN 16094 procedure A	% Change in Gloss	1.45
	Based on DIN EN 16094 procedure B	Level	5

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) ±Tolerance		

Surface Properties:

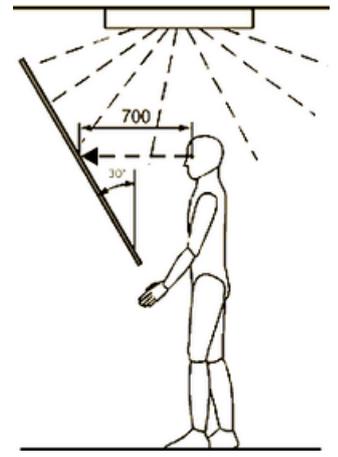|	Panels
Scratches	Listed surface properties are evaluated in accordance with PN EN 14322 and PN EN 438-1 norms
Contrasting Points	
Bubbles, Indentations, particles under f	
Pressure Marks	Micro scratches, which may be visible in daylight or under halogen lighting, are a result of the high gloss effect and are not considered a defect
Bubbles	
Observation distance and light characteristics for quality control in accordance with the current PN EN 14323 standard*	
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.
	Color Tolerance:
	White and Light Colors: Delta E ≤ 0.5
	Medium Intensity Colors: Delta E ≤ 0.8
	Dark Colors: Delta E ≤ 1.5
Larger Deviations are Permissible with Reflective and Metallic Decors	
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 0,8mm² and visible from a distance of 0,7m at a viewing angle of approximately 45º.

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.