

SPECTRUM HIGH GLOSS



TECHNICAL SPECIFICATIONS



+48 58 341 80 32



INFO@NIEMANNPOLSKA.PL



REKCIŃ, SPACEROWA 16. 83-010 STRASZYN,
POLAND



WWW.NIEMANNPOLSKA.PL



Spectrum furniture panels with a high gloss surface.

A 75 μ -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.

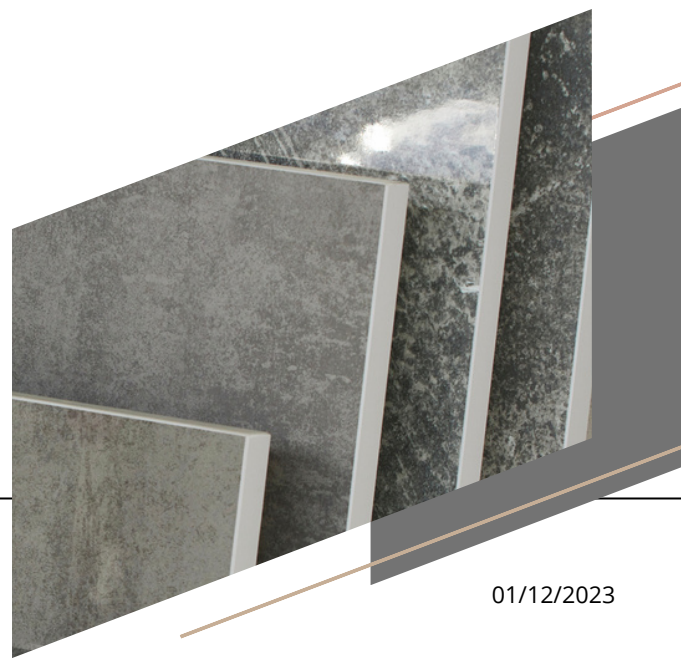
Standard Dimensions:

| | 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 | 75 μ + 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 | | |

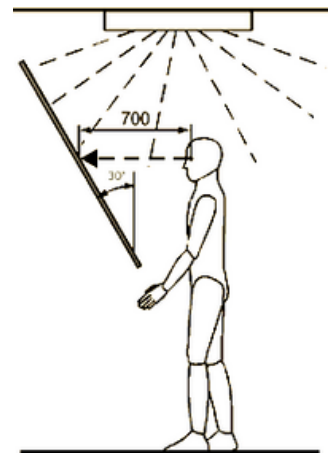
Surface Properties:

| | 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 | |
| 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 |
| 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 apparent 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 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.

