



TECHNICAL DATA SHEET

EDGE BANDING

All the products used in our production processes for the production of plastic items are purchased from EEC suppliers. POLIMOR Srl does not insert any additional chemical substances into its production process, therefore POLIMOR Srl is a "downstream user".

The materials that Polimor uses comply with the following regulations. If there are any variations relating to the composition of the products or if there are regulatory changes that set different limit values, our suppliers are obliged to promptly notify us.

SUPPORT MATERIAL:

ABS - ACRYLONITRILE-BUTADIENE-STYRENE COPOLYMER

Certified by our suppliers according to the following Directives:

1. REACH
2. SVHC
3. Directive 2002/95/EC "RoHS"
4. Directive 2005/84/EC "PHTHALATES"

PRINT PAINT:

UV ACRYLIC INKS

Certified by our suppliers according to the following Directives:

1. REACH
2. SVHC
3. Directive 2002/95/EC "RoHS"
4. Directive 2005/84/EC "PHTHALATES"

FINISHING PAINT:

UV ACRYLIC FINISHING PAINTS

Gloss: our glossy painted edge measures between 93 and 98 gloss

Polishing process: We use 100% acrylic UV paint.

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1. REACH
2. SVHC
3. Directive 2002/95/EC "RoHS"
4. Directive 2005/84/EC "PHTHALATES"

STANDARD EDGE TECHNICAL SPECIFICATIONS:

DIMENSIONS			
THICKNESS			0,30-3,00 mm
LONGITUDINAL DISTORTION		Max. tolerance	4mm in 1m length.
LONGITUDINAL DISTORTION		CONCAVE	NOT GRANTED
LONGITUDINAL DISTORTION		CONVEX	0.01 per 10mm wide
JUMBO ROLL WIDTH			300mm-700mm
CUTTING WIDTH		ENTIRE	15mm
THICKNESS TOLERANCES			
THICKNESS 0,40 - 1,5mm:			0,40-1,5mm: +/-0,05mm
THICKNESS 1,60 - 3,0 mm:			1,60-3,0 mm: +/-0,10mm
CUTTING TOLERANCES			
CUTTING TOLERANCES			0,40-3,00mm:+/-0,03 mm
PARALLELISM			
from 0.35 to 2.00 mm thick		max deviation	0,10 mm
from 2.10 to 3.00mm thick		max deviation	0,15 mm
PRETENSION			
THICKNESS	0,4-0,9mm	1,0-2,0 mm	2,1-3,0mm
Width \leq 29mm	0-0,3 mm	0-0,02mm	0- 0,25 mm
Width \geq 30mm	0-0,3 mm	0- 0,25 mm	0-0,3 mm
COLOR TOLERANCES			
WHITE			Δe max 0,50
LIGHT COLORS			Δe max 1,00
INTENSE COLORS			Δe max 1,50
GLOSS			
GLOSS RANGE	method used for measurement ASTM D-523 (60°)		Da 3 a 98 gloss

TECHNICAL SPECIFICATIONS FLEXIBLE EDGE:

FLEX EDGE PARAMETERS			
<p>The flexible edge is made of ABS available in plain and wood colours. It is used for narrow radius edgebanding processes eliminating the risk of bleaching and for J-HANDLE edgebanding and other soft-forming profiles</p>			
THICKNESS	from	0,35mm	to 2,00 mm

PRIMERS:

The edge is supplied with primer suitable for use with all types of EVA and PUR glues.

TECHNICAL PARAMETERS OF ANY PROTECTIVE FILM:

PROTECTIVE FILM			
	Metodo	Units	US units
Type of film	/	Polyolefins	
Color	/	Black and White (external side White)	
Type of tape	/	Rubber	
Thickness	AFERA 5006	80µm	3,2 mils

PAINT TIGHTNESS TEST ON THE EDGE:

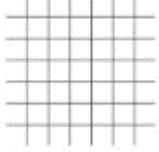
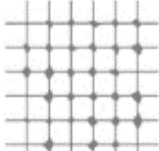
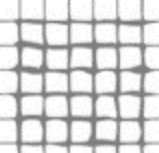



This test is regulated by the UNI EN ISO 2409:2020 standard which provides a method for evaluating the resistance of paints and varnishes (including wood stains) to detachment from the substrates when engraved up to the support with a square mesh grid that penetrates the substrate.

Blade space	Metric reticle size (squares)	Measuring range
1mm	1x1mm	0µm-60µm
2mm	2x2mm	61µm-120µm
3mm	3x3mm	121µm-250µm

The tool used to carry out the test is the Squarer, a simple device with mechanical functions, offered in different variants in terms of number of cutting edges and blade space. It is normally supplied with accessories such as a brush to remove debris after cutting, a magnifying glass to view the surface and adhesive tape for the tear test

Below is an example of the characteristics of a six-blade squarer with different blade spacing according to the UNI EN ISO 2409 standard.

The grid test is a destructive method. In fact, on an area of at least 10 x 10 cm, a grid incision (square) is made on the film reaching up to the substrate then, after having applied an adhesive tape to cover the engraved area, it is torn off vigorously. Finally, we proceed to verify the level of integrity of the lattice by visually observing the area and comparing the result with the reference tables contained in the ISO2409 standard to determine the result.

RISULTATI TEST - DESCRIZIONE /VALUTAZIONE	
	<p>ISO VALUE 0 - The edges of the cuts are completely flat; none of the squares of the grid have detached. Suitable, after adequate preparation of the support, to receive a new painting.</p>
	<p>ISO VALUE 1 - Detachment of small flakes of paint at the intersection of the cuts. The surface of the paint that has peeled off corresponds to 5% of the grid area. Suitable, after adequate preparation of the support, to receive a new painting.</p>
	<p>ISO VALUE 2 - The paint has peeled off along the edges of the cuts and/or at the intersection points of the grid lines. The surface of the paint that has peeled off varies between 5% and 15% of the entire surface. Suitable, after adequate preparation of the support, to receive a new painting.</p>
	<p>ISO VALUE 3 - The paint has partially or completely peeled off along the edges of the cuts/or some squares have partially or completely peeled off. The surface area of the paint that has peeled off varies between 15% and 35%. Before carrying out new painting, proceed with the application of a consolidating fixative primer and once dry, repeat the test, evaluating adhesion again. If the values allow it, carry out new painting after applying a fixative primer. Otherwise, plan to partially or completely scrape the surface before proceeding with new painting.</p>
	<p>ISO VALUE 4 - The paint has peeled off in large stripes along the edges of the cuts and/or some squares have partially or completely peeled off. The surface that has detached varies between 35% and 65%. Provide for new partial or total scraping of the surface before proceeding with new painting.</p>
	<p>ISO VALUE 5 - Any degree of peeling that cannot fall within classification 4, where, therefore, the paint that has peeled off exceeds 65% of the paint squares. Make sure the surface is completely scraped before proceeding with new painting.</p>

NOTES RELATING TO EDGE BONDING PROBLEMS

Please note that for correct gluing of the edge, in addition to the perfect application of the primer on the edge, it is necessary to take into consideration the temperature of the processing environment and of the glue and other factors listed below.

Room temperature:

In winter, if the edge is stored in environments with a temperature lower than 17/18°C, during the processing phase it should be conditioned (like the panel) at a temperature > 18°C. In fact, if the edge is too cold, condensation water could form on the primed part to be glued, which could generate a cushion of vapor in contact with the hot glue, with consequent de-lamination problems. It is also necessary to check that the humidity of the wood of the panels (the ideal one would be between 8-12%), if too high, can cause incorrect gluing.

Glue temperature:

In winter, also pay attention to the glue processing temperatures: what is shown on the display sometimes does not correspond to the real temperature of the glue in the tank or of that melted on the glue spreading roller.

During the phase of joining the edge to the panel the glue must still be liquid if for example the room temperature is low and there are air currents the glue can film on the surface.

The defect is recognizable:

- On loaded glues, the knurling of the roller remains visible (glue temperature too low at the moment of joining or roller pressure too low).
- On unfilled glues, after detachment of the edge, a whitish appearance instead of a slight translucent trace.

Always use the correct quantity of adhesive which must fill the gaps in the chipboard panels.

Other factors:

During the edge gluing phase it is necessary to use the correct pressure normally between 2-4 bar (depending on the system used) it is necessary to correctly calibrate the tolerances on the lifting and pressure elements (for thin edges approx. 0.1 mm and for edges with thickness 0.1-0.2mm).

Avoid dust: if possible, leave the edge rolls packaged until they are inserted into the machine and/or dust the blocks before use.