











# **Product class**

Type MDF.HLS according to EN 622-5

## Scope

High quality moisture-repellent MDF for use in humid conditions, also suitable for construction purposes with instantaneous or short-term load duration.

## **Description**

High-density MDF board, coloured grey in the mass with a hard, fine and smoothly sanded surface. The board is subject to minimal expansion and swelling in conditions of high humidity.

MDF Umidax® Rhino has low formaldehyde emission (E1 class). Moreover, Umidax® Rhino meets the requirements set by the California Air Resource Board (CARB - phase 2). According to ASTM E 1333-96, formaldehyde emission is less than 0,11 ppm, which corresponds to CARB, phase 2 as set by the ACTM. Upon request, this MDF board can be supplied with PEFC or FSC Mixed Credit certificate.

### Use of the product

MDF Umidax® Rhino is suitable for interior decoration, industrial processing, and furniture production. The board can be lacquered or finished with paper, foil, melamine, veneer or high pressure laminate. MDF Umidax® Rhino board can als be used for load-bearing applications in humid conditions.

MDF Umidax® Rhino is very much appreciated in applications where MDF panels are perforated (e.g. acoustic ceilings or wall systems). As the boards are coloured grey in the mass, the perforations or grooves are also grey and give a nice contrast with the surface finishing of the panel. The same applies for the edges: further processing of the panel edges is not always necessary to have a nice esthetical finishing.

The board can be applied in service class 2 (restrictions in temperature and ambient humidity) and can be used in biological hazard classes 1 and 2 of EN 335-3. During and especially after installation the boards must, wherever possible, be optimally protected from any direct contact with water. They must be stacked flat, on a pallet or using a sufficient number of cross members. Boards should not be stored vertically, unless ground contact can be avoided. The board will expand/shrink under variable humidity conditions, albeit to a lesser extent than MDF S-Lux, meaning that an expansion space must be provided for at all times. Use suitable sawing, milling and drilling tools. MDF Umidax® Rhino can be used for structural walls, with a restriction in the load duration class. In service class 2, corrosion resistant fittings must be used, e.g., galvanised steel. Nails or screws should be kept at least 8 mm away from the edge of the board.





CARB II COMPLIANT







Important remark: MDF Umidax® Rhino is coloured grey in the mass. However, there may be colour differences between different production batches and thicknesses. It is advisable to use boards from the same production batch for each project.

#### **Dimensions**

Thickness: 6 to 25 mm. Maximum width 255 cm. Maximum length 630 cm.

Standard thicknesses and dimensions are listed in our extensive stock program. Furthermore, Spanolux

has high-capacity saws that support all sawing dimensions. In principle, all thicknesses and lengths/ widths are available within the press capabilities.

Contact our sales team or send an e-mail to sales.spanolux@unilin.com for further details.

## **Technical specifications**

Property	Test	Unit	Ranges of nominal thickness (mm)				
	method		> 4 to 6	> 6 to 9	> 9 to 12	> 12 to 19	> 19 to 30
Swelling in thickness 24 h	EN 317	%	18	12	10	8	7
Internal bond	EN 319	N/mm <sup>2</sup>	0,70	0,80	0,80	0,75	0,75
B P A	EN 246		2.4	2.4	22	20	20
Bending strength	EN 310	N/mm <sup>2</sup>	34	34	32	30	28
Madulus of electicity in bonding	EN 210	N1/100 100 2	2000	2000	2000	2700	2600
Modulus of elasticity in bending	EN 310	N/mm <sup>2</sup>	3000	3000	2800	2700	2600
Option 1							
Option 1							
Swelling in thickness	EN 317	%	25	19	16	15	15
after cyclic testing	EN 321						
Internal bond	EN 319	N/mm <sup>2</sup>	0,35	0,30	0,25	0,20	0,15
after cyclic testing	EN 321		7,22	7,2 3	-,	-,	
Option 2							
Internal bond	EN 319	N/mm <sup>2</sup>	0,20	0,15	0,15	0,12	0,12
after boil test	EN 1087-1	. 1/111111	0,20	0,13	0,13	0,12	5,12



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