Zenit®

COMPOSITION

Medium-density fiberboard (MDF) base board covered with decorative paper on both sides and lacquered with solvent-free (VOCs) UV treatment on the front side.

RECOMMENDED APPLICATIONS

Components for indoor furniture and decoration.

BASE BOARD CHARACTERISTICS

Dimensional tolerances

Property	Value	Standard
Length and width	±2 mm/m	EN 324-1
Thickness	± 0,3 mm	EN 324-1
Squaring	± 2 mm/m	EN 324-2

Physical & mechanical properties

	Thickness (mm)			
Property	**10-12**	**16-18**	**19-25**	**Standard**
Density (kg/m³)	780±50	730±50	700±50	EN 323
Internal bond (N/mm²) – min.	1,05	1,00	1,00	EN 319
Thickness swelling 24h (%) – min.	15	12	10	EN 317
Bending strength (N/mm²) – min.	22	20	18	EN 310
Modulus of elasticity (N/mm²) – min.	2500	2200	2100	EN 310
Moisture content (%) – range		4 - 11		EN 322
Sand content (%) – max.		0,05		ISO 3340
Standard formaldehyde emission classification		E05 / CARB2		EN 717-1
Fire performance (classification)		D-s2, d0		EN 13501-1

COATING CHARACTERISTICS

Physical & mechanical properties

	Propiedad	Result	Standard
	Stain resistance	Grade 5	EN 14323: 17
	Resistance to cold liquids	Grade 5	EN 12720:09
	Cross cut test (adherence)	Grade 1	ISO 2409 : 13
	Crack resistance	Grade 5	EN 14323: 17
	Cold check (40 cycles:1h 60 °C,1h –20°C,15' room tem.)	No damage	AIDIMME
	Light fastness	Blue scale: 7 Grey scale: 5	EN 14323: 17
	Dry heat resistance	Grade 5	EN 12722:09
	Damp heat resistance	Grade 5	EN 12721:09
	Scratch resistance	Grade 4 (5N)	EN 438.2
	Abrasion resistance	Class 4 (PI = 700 cycles)	EN 14322: 17
	Resistance to water steam	Grade 5	EN 14323: 17
	Resistance to impact stress (large diameter steel ball)	>150 cm	EN 14323: 17
	Measures tolerance (edged parts)	± 0,5 mm	ALVIC
	Antibacterial efficacy (24 hours)	100%	ASTM E2180:07 JIS Z2801:06
	Warping tolerance	2 mm / 1 m	ALVIC
	Plain color tolerance	ΔE ≤ 0,70	CIELab D65/10°
	Gloss (60°)	4 ± 1 GU	ISO 2813

Evaluation of surface defects

To be visible under the above conditions not be considered admissible defects (bigger than 1 mm²) as follows:

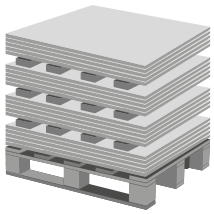
1. Viewing distance: 70 cm.
2. Position of workpiece: vertical (installation conditions).
3. Lighting: diffused light of white fluorescent lamps.
4. Observation time: maximum 20 seconds.

Quality standard

The supplying conditions for the panels are:

1. 70% flawless panels / 30% panels with maximum 3 defects.
2. For a more convenient use, these defects are marked.
3. Any defect in the perimeter of the board, up to one centimeter inward, will not be considered as such because it is in an area that needs to be discarded when processing.

USE RECOMMENDATIONS



Storage

The panels should be checked upon receipt so that any eventual issue can be communicated as soon as possible. Avoid exposure of the product to sunlight (UV radiation) and other sources of heat. Store in a ventilated area. Use a FIFO inventory management system to avoid the mixing of products of very different dates of production, which, with the slight changes in the qualities of coatings, might lead to visible differences between them.

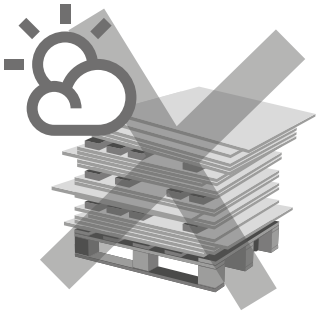
The recommended range of environmental conditions of storage and use is as follows:

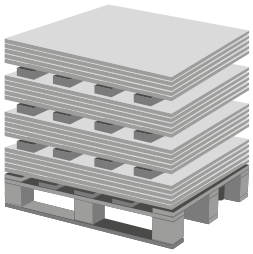
Temperature: 10°C - 40°C

Humidity: 30% - 70%

The boards should be checked upon receipt so that any eventual issue can be communicated as soon as possible.

The panels/components must be consumed within 12 months of delivery to prevent the adhesive of the protective film from causing residue problems or excessive adhesion.

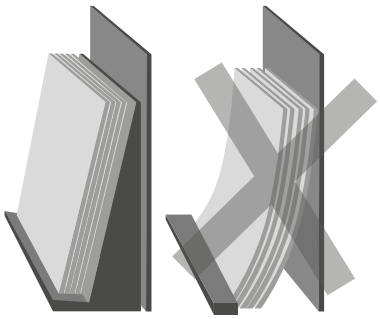




Horizontal storage

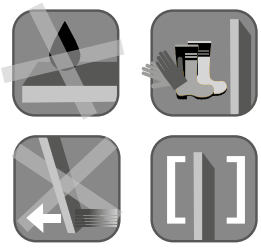
The panels must not be placed directly on the ground. Whenever possible, the storage support media supplied with each pack should be used and placed in the same position in order to maintain a uniform and level height and to prevent deformation of the boards. For the length of 2750 mm at least 4 supports should be used distributed uniformly.

When stacking multiple packs, up to a recommended maximum of four, the supports of different packs must be aligned vertically in order to transfer the weight to the lower layers without deforming the panels. To protect the surface of the panels, use upper and lower panels protections.



Vertical storage

Although it should be avoided whenever possible, a limited number of boards may be stored vertically in racks with a support surface for the panels, so as to prevent warpage, and a minimum inclination of 10°.

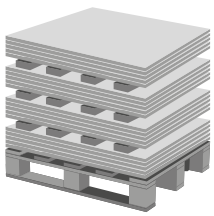


Handling & transport

Avoid at all times the negative impact that moisture may have on the panels by preserving the integrity of the shrink wrap protective film until final use. If any previous operations of loading, transport, unloading, etc. have caused the protective film to deteriorate, the pack should be rewrapped as soon as possible. Likewise, cut pieces should also be protected from moisture until they can be edged.

In manual handling of the boards protective gloves and safety shoes must be worn in order to avoid injury. During machining of the panels, appropriate suction systems must be used and, if necessary, protective masks to prevent breathing in of dust generated from the panel.

The panels must not be dragged on any surface that may cause deterioration of any of their faces. During all handling and machining it is essential to prevent particles, machined material and protective film residues or any other dirt from being caught between the pieces, since, with the cumulative weight of several units, visible marks may be produced on the lacquered surface. This precaution is especially critical for high gloss coatings.



USE RECOMMENDATIONS



Cleaning

The protective film of the panels must be removed once installation is complete or a maximum of 6 months after delivery, in order to ensure that no adhesive residue remains on the surface.

For cleaning, it is recommended to use a nonabrasive cloth moistened with soap and water and immediate subsequent drying.

Under no circumstances must harsh chemicals be used such as solvents, alcohol, ammonia, etc.





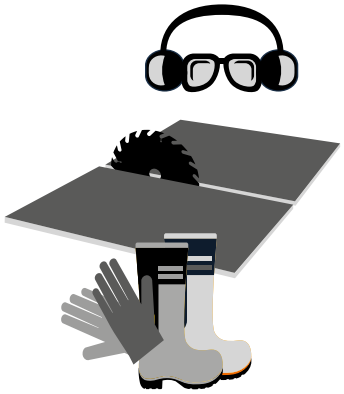
Applications

The characteristics of the product enable it to be used as vertical and horizontal surfaces.

The information contained in this document does not relieve the purchaser, transformer, assembler and/or final user of the obligation to check the compatibility of the material with the planned use and installation.

Machining recommendations

The panel can be cut with any normal cutting disc, provided that it is adequately sharpened. It is recommended to use discs with an angle of attack that is not too aggressive in order to avoid splintering. An example of a suitable disc would be the Freud LU3F with -3° back-slanted teeth.



As guidance, for squaring, the LU3F model can be used with disc diameter = 300 mm, plate width = 3.2 mm, body width = 2.2, axle = 30 mm and number of teeth = 96. For edging, it is advisable to use a diamond cutter, the more teeth, the better the result. With a Homag edger, two suitable options are as follows:

- Leuco Leucodia Power-Tec Model CM 250x14x80 Z = 18+18 (good result)
- Leuco Leucodia Power-Tec Model S 250x14x80 Z = 24 +12+6 (optimal result)

The choice of one or the other depends on the durability the user gets from each.

It is essential to discard at least one centimeter around the perimeter of the board.



Updates

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