



BETONYP®  
building boards

The modern way of living.

  
**FALCO**  
wood industry

# SO LID

## Tough for 30 years.

Healthy, debarked pine wood and cement: the raw materials used to produce one of our most successful products for more than three decades. Our cement-bonded chipboard, called BETONYP®, is used where lightweight construction and facing elements require toughness and durability.

- **high abrasion and shock resistance**
- **moisture proof and frost resistant**
- **fungal and insect resistant**
- **flame resistance and anti-combustion properties**
- **free of formaldehyde and asbestos**
- **easy processing and fixation**
- **extended durability**
- **sustainable and recyclable**

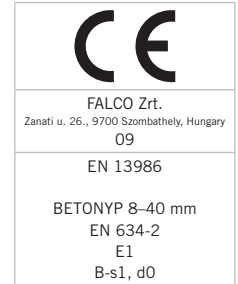
# BETONYP® building boards

## Cement-Bonded Chipboard

FALCO has produced cement-bonded chipboard since 1977. Pine wood, a sustainable timber source, is exclusively used for production.

## Quality

- The product is CE certified
- Fire class B-s1, d0 (according to EN 13501-1)
- Once a year, the production process is reviewed by ÉMI (accredited Hungarian control institute for the building industry)



## Technical and Mechanical Characteristics

Product quality according to technical data sheet, important parameters / values:

Moisture content after acclimatisation	6-12 %
Bending strength	8-40 mm min. 9 N/mm <sup>2</sup>
Vertical tensile strength to the board	min. 0.5 N/mm <sup>2</sup>
Modulus of elasticity	4500 N/mm <sup>2</sup>
Swelling	after 24 hours of soaking 1.5 %
Dimensional change effected by the humidity in longitudinal and lateral direction of the sheet respectively at a temperature of 20°C upon relative humidity increasing from 25 % to 85 %	max.: 0,3%
Thermal conductivity*	0.26 W/mK
Steam diffusion resistance*	22.6
Air permeability*	0.133 l / min. m <sup>2</sup> Mpa
Frost resistance*	no visible transformation
Sound absorption*	30 dB with a 12 mm thick sheet
Surface pH value*	11

\* Values only for information

## Formats

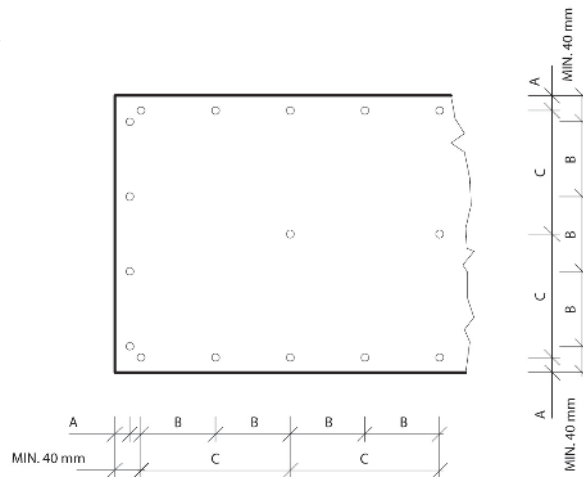
<b>Standard sizes (mm)</b>	3200 x 1250, 2800 x 1250									
<b>Standard widths (mm)</b>	8	10	12	14	16	18	20	24	28	40
<b>Size tolerance (mm)</b>	± 0.7	± 0.7	± 0.7	± 1.0	± 1.2	± 1.2	± 1.5	± 1.5	± 1.5	± 1.5
<b>Density</b>	1350 ± 75 kg/m <sup>3</sup>									



## Fixing of the boards

- The cement-bonded chipboards can be fixed by pneumatic and manual nailing, spiral nailing, screwing and pneumatic clamping.
  - The figure and the table show the required fixing distance for the most frequently applied board thicknesses.
  - The fixing distances at corners are to be selected so that excessive weakening of cross-section may not occur.
  - It is recommended to apply screwen fixing for boards with more than 16 mm thickness.
  - It is required to use plated /corrosion resistant/ fasteners and fittings/zinc-plated, cadmiated etc./
  - Proper support of boards should be provided during fixing for any assembly method.
- **Screwing:**  
With preboring. Bore diameter for nailing:  $D=0,8-1,1 \times D_s$   $D_s$ =diameter of screw.
  - **Nailing:**  
Without preboring of boards with thickness under 10 mm. Above this thickness preboring of chipboards recommended. Bore diameter for nailing:  $D=0,8 \times D_n$   $D_n$ =diameter of nail shank.
  - **Clamping:**  
Recommended for cement bonded chipboards with thickness under 12 mm only using clamps with legs of intermediate length and an approved clamping tool.
  - **Bonding:**  
Provides additional joint for nailing and clamping. Use of alkaline reaction adhesives recommended.

### Required fixing distances



Required distances as a function of the most frequently used board thicknesses

Board thickness (mm)	Fixing distance in mm on board edge		
	A	B	C
8, 10, 12, 14	20 mm	200 mm	400 mm
16, 18, 20	25 mm	300 mm	600 mm
22, 24, 28	25 mm	400 mm	800 mm
40	40 mm	600 mm	1200 mm

## Processing

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- **Cutting to size**  
It is necessary to use fine toothed, hard-metal tipped saw blades, sharpened slightly to alternating angles. Setting of cutting depth: overhang of saw blade should only exceed overall thickness to an extent that requires minimal cutting.
- **Drilling**  
The use of H8S steel borer is recommended. A clean bore is produced by a high number of revolutions; pitting of the rear rim of the board can be avoided by using a hardwood pad.
- **Milling**  
It is necessary to use hard metal tipped tools; it is recommended to work at medium cutting speed.

## Application

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- Facing elements, including but not limited to;  
e.g. exterior facade cladding, false ceiling, interior space divider
- Auxiliary panel elements for lightweight and traditional construction systems,  
e.g. interior space divider panels, ceiling and flooring elements, facing panels
- Shuttering elements
- The movement of the boards caused by temperature and humidity change should be taken into consideration

## Product Range

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Thickness (mm)	Packaging (pcs. / pallet)	3200 x 1250 mm		2800 x 1250 mm	
		(m <sup>2</sup> )	(m <sup>3</sup> )	(m <sup>2</sup> )	(m <sup>3</sup> )
8	60	240	1.92	210	1.68
10	50	200	2.00	175	1.75
12	40	160	1.92	140	1.68
14	35	140	1.96	122	1.71
16	30	120	1.92	105	1.68
18	30	120	2.16	105	1.89
20	25	100	2.00	88	1.75
24	20	80	1.92	70	1.68
28	20	80	2.24	70	1.96
40	15	60	2.40	53	2.10

BETONYP® products are also available cut-to-size.

## Storage and Transportation

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- Protect against damage, contamination and the impact of weather
- Protect the top board of an open pallet against heat
- Keep dry

## Product Characteristics

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- Moisture proof and frost resistant
- Fungal and insect resistant
- Flame resistance and anti-combustion properties

# Design boards / Trends 2010/2011 / Worktops



## All boards in one place.

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Throughout Central and Eastern Europe, Falco provides a complete product range as a leading board manufacturer for the furniture and building industries. Take advantage of our know-how and experience in the production of high quality and sustainable wood based panel products.

We would be more than happy to discuss your requirements and any specific applications for our decorative design boards and worktops or Trends 2010/2011 collection. Simply utilise the fax back form provided!