

Project number: FB-A166N-13282-2017

Topic number: M-3036/2007

The text of the present document is a translation which is based on the original Hungarian language document with the same project number, and in case of legal dispute the Hungarian version is authoritative.

TVB
TYPE TEST CERTIFICATE

for the building product

Cement-bonded particleboard Betonyp 8-40 mm thick

**The Central Laboratory of Technical Direction of
the ÉMI Non-profit Llc. for
Quality Control and Innovation in Building
certifies by means of this document for**

**FALCO Forgácsolapgyártó Zrt.
9700 Szombathely, Zanati u. 26.**

**as holder of TVB
that the initial type test of the construction product
mined at the site of**

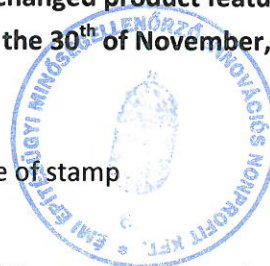
**FALCO Forgácsolapgyártó Zrt.
9700 Szombathely, Zanati u. 26.**


falling under the Decree no. 305/2011/EU (of 9. March 2011) has been performed. Based on the results detailed in the Test Reports No. M-3036/2007 dated 29. 10.2007 and No. FB-A164N-09947-2016, dated 05.10.2016 as well as No. FB-A166N-13282-2017 dated 17. 11.2017, the product meets the requirements specified in the technical specifications MSZ EN 13986:2004+A1:2005 „Wood-based panels for use in construction. Characteristics, evaluation of conformity and marking” for the building product „Cement-bonded particleboard of non-structural use, applicable in dry, wet and outer environment”.

**The TVB
- under unchanged product features -
is valid until the 30th of November, 2020.**

Budapest, November 17, 2017

Place of stamp




Péter Sólyomi
Head of Central Laboratory

The Type Test Certificate consists of **three** numbered pages that are only valid for one unit!

The ÉMI Non-profit Llc. is an organization certified according to MSZ EN ISO 9001 standards.

Features (characteristics) of the product serving for base for declaration of performance:

Product characteristics and their units of measurement	Requirements	Test/assessment method
Bulk density kg/m ³	≥ 1000	MSZ EN 323:1995
Bending strength (durability against aging) N/mm ²	≥ 9.0	MSZ EN 310:1999
Flexural rigidity (modulus of elasticity in bending) class I N/mm ²	≥ 4500	MSZ EN 310:1999
Durability as:		
<ul style="list-style-type: none"> Internal bond (tensile strength perpendicular to the plane of the board) N/mm² 	≥ 0.5	MSZ EN 319:1998
<ul style="list-style-type: none"> Swelling in thickness after dipping in 20 °C water for 24 hours % 	≤ 1.5	MSZ EN 317:1998
<ul style="list-style-type: none"> Moisture resistance (values measured after cyclic load) <ul style="list-style-type: none"> - Swelling in thickness % - tensile strength perpendicular to the plane of the board N/mm² 	≤ 1.5 ≥ 0.3	MSZ EN 321:2002 MSZ EN 321:2002
<ul style="list-style-type: none"> Biological durability class 	3	MSZ EN 335:2013 MSZ EN ISO 846: 1999
formaldehyde emission class E ₁ mg/m ³	≤ 0.124	MSZ EN 717-1:2005
Reaction to fire class	B-s1, d0	MSZ EN 13501-1:2002
- When using as floor cover class	B _{FL} -s1	+A1:2010
Water vapour permeability (middle density: 1200 kg/cm ³) μ	wet 30 dry 50	MSZ EN 12524:2000
Airborne sound insulation* R pce	8 mm thick 27.4 40 mm thick 36.4	MSZ EN ISO 10140-2:2011
Sound absorption **	between 250-500 Hz 0.1 between 1000-2000 Hz 0.3	MSZ EN ISO 354:2003
Thermal conductivity *** (middle density: 1200 kg/cm ³) λ W/mK	0.23	MSZ EN 12664:2001
Content of Pentachlorophenol**** ppm/kg	≤ 5	CEN/TR 14823: 2003

* if acoustical requirements arise from use (the values were calculated for bulk density of 1400 kg/m³ with the formula $R = 13 \times \lg(m_A) + 14$).

** if the sheet is used for sound absorption

*** if heat insulation consequences derive from the use

**** ppm=means the 10⁻⁶ magnitude of the given unit of measurement (in this case kg)

The results of the first type test can be used for issuing the *Performance declaration* in case of system 3 according to the Annex V. of the Decree no. 305/2011/EU (March 9, 2011) of the European Parliament and Council until the technical specifications, product features, requirements as well as production technology of the product manufactured at the plant of the manufacturer remain *unchanged*.

The holder of TVB is obliged to notify the Central Laboratory of the Technical Direction of ÉMI Non-profit Llc. about the changes in 30 days and by this the renewal of TVB can be initiated. The TVB is exclusively to confirm the performance of the first type test of the product.

During the validity period of TVB the ÉMI Non-profit Llc. shall check up the essential characteristics of the products forming the basis for the performance declaration

In the next three years twice

by means of an additional order.

The order for the review must be submitted to ÉMI Non-profit Llc. at the first time until 30.09.2018. In case of failing to review the TVB shall expire.

The certificate compiled by:



Péter Szeles

Test engineer

Checked by:



Bálint Schwarczkopf

Unit leader

