

## ÉMI Non-Profit Limited Liability Company for Quality Control And Innovation in Building Central Laboratory

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No.: M-3036/2007-2012

## TVB

## TYPE TEST CERTIFICATE

about construction products

Betonyp 8 to 40 mm thick cement-bonded wood particle board

ÉMI Non-Profit Limited Liability Company for Quality Control and Innovation in Building Central Laboratory certifies with this document to

> FALCO Forgácslapgyártó Zrt. 26 Zanati u., H-9701 Szombathely, Hungary

as the holder of the TVB, the initial type test of the construction products subjected to BM-GKM-KvVM Common Decree no. 3/2003. (dated 25<sup>th</sup> January), manufactured at the site of

FALCO Forgácslapgyártó Zrt. 26 Zanati u., H-9701 Szombathely, Hungary

has completed. According to the tests results detailed in the Initial Type Test Report No. M-3036/2007 dated 15<sup>th</sup> June 2011 and the Follow-Up Type Test Report of the same number and date, the products meet the requirements set in technical specification MSZ EN 13986:2005, entitled "Wood-based panels for use in construction. Characteristics, evaluation of conformity and marking" for cement bonded wood particle board products detailed on page 2 of 3 to be used for the purpose of permanent formwork of concrete, interior and exterior wall covering, ceiling and flooring.

The TVB remains valid

 subject to no change in the product characteristics – until 15. 10. 2017

Budapest, 27.09.2012

L.S.

Péter Sólyomi Head of Central Laboratory L

This Type Test Certificate contains 3 numbered pages, which are valid only together.

ÉMI Non-Profit Limited Liability Company is an organization certified by MSZT and IQNET according to MSZ EN ISO 9001:2009, Project Number: TB-M166X-00929-2012

KBiA-III-3-2011.09,19.



Product characteristics (properties) concerning the attestation of conformity of the product:

Product Characteristics and Units		Requirement	Testing/evaluation method
Bulk Density	kg/m³	≥ 1000	MSZ EN 323:1995
Bending strength (durability against aging)	N/mm <sup>2</sup>	≥ 9.0	MSZ EN 310:1999
Bending stiffness (Modulus of elasticity)	N/mm <sup>2</sup>	≥ 4000	MSZ EN 310:1999
Internal bond (tensile strength perpendicular	to the pla	ne)	
stored in standard climate	N/mm <sup>2</sup>	≥ 0.5	MSZ EN 319:1998
after cyclic test (moisture resistance)	N/mm <sup>2</sup>	≥ 0.3	MSZ EN 321:2002
Swelling in thickness			and the second s
after immersion to 20°C water for 24 hours (durability)	%	≤1.5	MSZ EN 317:1998
after cyclic stress (moisture resistance)	%	≤1.5	MSZ EN 321:2002
Release of formaldehyde class E <sub>1</sub>	mg/m <sup>3</sup>	≤ 0.124	MSZ EN 717-1:2005
Reaction to fire	class	B-s1, d0	MSZ EN 13501-1:2002 +A1:2010
-when used as flooring	class	B <sub>fi</sub> -s1	
Water vapour permeability	щ	wet 30 dry 50	MSZ EN 12524:2000
Airborne sound insulation*	R pc	8 mm thickness: 27.4 40 mm thickness: 36.4	MSZ EN ISO 10140-2:2011
Sound absorption**	-	Between 250 and 500 Hz 0.1 Between 1000 and 500 Hz 0.3	MSZ EN ISO 354:2003
Thermal conductivity***	λ W/mK	0.23	MSZ EN 12664:2001
Biological durability	class	3	MSZ EN 335-1:2007 MSZ EN ISO 846: 1999
Content of pentachlorophenol ****	ppm/kg	≤5	CEN TR 14823 Technical Specification

<sup>\*</sup> if usage has acoustic requirements (the values have been calculated for 1400 kg/m $^3$  bulk density with the formula R = 13 x lg (m<sub>A</sub>) + 14).

The results of the Initial Type Test can be used for issuing *Declaration of Conformity* in compliance Annex 4. of BM-GKM-KvVM Common Decree no. 3/2003. (dated 25<sup>th</sup> January) and according to the product type in system (3) until the manufacturing place, the technical specification, the product characteristics, the requirements and the manufacturing processes of the product remain *unchanged*.

The Holder of the TVB has to claim any changes in the aforementioned properties to the Central Laboratory of ÉMI Non-profit Llc within 30 days, which can be the inquiry to renew the Initial Type Test and the Type Test Certificate.

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<sup>\*\*</sup> if the board is used for sound absorption

<sup>\*\*\*</sup> if usage has heat insulation consequences

<sup>\*\*\*\*</sup> ppm=10.6 magnitude of the unit (in our case, kg)



The Type Test Certificate attests only that the Initial Type Test of the product was performed and the results are satisfactory.

In the validity period of the Type Test Certificate ÉMI Non-profit Llc will verify the essential properties of the product as the base of the declaration of conformity

## twice in the next 5 years

by separate order.

The order for performing verification has to be sent to ÉMI Non-prpfit Llc first time until 31<sup>st</sup> May 2014. In case of omission of the verification, the Type Test Certificate will be invalidated.

The test was conducted by:

Checked by:

Miklós Nagy Test Engineer

Éva Törökné Horváth <sup>(</sup> Head of Division