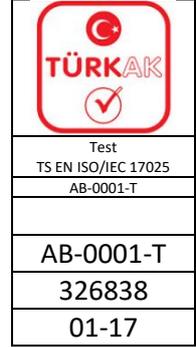




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HEADSHIP OF TSE TEST and CALIBRATION CENTER  
CONSTRUCTION MATERIALS LABORATORY (GEBZE)

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## TEST REPORT

Requesting/Customer: (Name, Address, City etc.)	HASOĞLU KOMPOZIT YAPI MALZ. VE MAK. SAN. TIC. LTI. ŞTİ.: YAYLA MAH. FEVZİ ÇAKMAK CAD. İHSN EKMEKÇİ SOK. NO: 17/B-TUZLA-İSTANBUL)
Order Date / No:	03.11.2016 / 164521
Sample Description: (No, Type, Mark, Model etc.)	DECK FLOORING ... 71.00 items
Test Item Receipt Date:	03.11.2016
Date of Test:	04.11.2016 – 12.01.2017
Applied Standard/Method:	TS EN 15534-4/APRIL 2014: 2018-01 Composites produced from cellulose based materials and thermoplastic (Generally known as wood-polymer composite (WPC) or natural fibre composites (NFC)) – Part 4: Specifications for Deck profiles and tiles
Number of pages of the report:	4
Remarks:	

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The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

This test report was prepared upon customer's request, can not be used as certificate of conformity to standards, does not represent a batch and can not be used as conformity document for advertisements and procurements.

Seal and Date  
[Seal] 12/01/2017

Person in charge of tests  
[Signature]  
Murat GÜNDÜZ  
Certified Engineer

Reviewer  
[Signature]  
Ahmet Önder ELİRİ  
Technical Chief (Deputy)

Approved by  
[Signature]  
Feyyaz AŞKIN  
Laboratory Manager

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This test report represents only tested sample(s), and shall not be used as Product Certificate.

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## TEST RESULTS

Standard No. Name of Method	Name of Test Method	Value of Standard	Value Found
TS EN 15534-4/APRIL 2014 Composites produced from cellulose based materials and thermoplastic (Generally known as wood-polymer composite (WPC) or natural fibre composites (NFC)) – Part 4: Specifications for Deck profiles and tiles	Pendulum slip test	≥36	Front face: 78 Back face: 77
	Linear determination of mass	Producer statement is necessary for tolerances	Before conditioning: 2.21 g/mm After conditioning: 2.21 g/mm
	Determination of deviation from flatness	Producer statement is necessary for tolerances	0.0 mm
	Determination of Thickness – Length – Width	Producer statement is necessary for tolerances	Crosswise direction: 0.10 mm Lengthwise direction: 0.10 mm
	Determination of impact	Length of crack cannot be more than ≥10mm or recess remnant cannot be more than ≥0.5 mm	Length of crack = 18.49 mm Depth of crack = 0.70 mm
	Determination of bending strength	-	21.27 N/mm <sup>2</sup>



## TEST RESULTS

Standard No. Name of Method	Name of Test Method	Value of Standard	Value Found	
TS EN 15534-4/APRIL 2014 Composites produced from cellulose based materials and thermoplastic (Generally known as wood-polymer composite (WPC) or natural fibre composites (NFC)) – Part 4: Specifications for Deck profiles and tiles	* Determination of flexibility module	-	3622.74 N/mm <sup>2</sup>	
	F <sub>max</sub>	F <sub>max</sub> ≥ 3300 N (arithmetical average) F <sub>max</sub> ≥ 3000 (single values)	3148.95 N	
	Moisture resistance under repeating conditions	Decrease in average bending ≤20% Individual decrease in bending ≤30%		4.91%
			-	E.mod. Before cycle: 3622 N/mm <sup>2</sup> E.mod. After cycle: 3418 N/mm <sup>2</sup>



### TEST RESULTS

Standard No. Name of Method	Name of Test Method	Value of Standard	Value Found
TS EN 15534-4/APRIL 2014 Composites produced from cellulose based materials and thermoplastic (Generally known as wood-polymer composite (WPC) or natural fibre composites (NFC)) – Part 4: Specifications for Deck profiles and tiles	* Determination of resistance to swelling	1 ) Average swell <b>&lt;4% thickness</b> <b>&lt;0,8% width</b> <b>&lt;0,4 length</b> 2) Material swelling <5% thickness <1,2% width <0,6% length 3) Average water absorption <b>&lt;7% weight</b> 4)Material water absorption <9%	1) Average swelling <b>(thickness)</b> 1-2.day:%0,11 2-4.day:%0,15 4-7.day:%0,09 7-14.day:%0,20 14-28day:%0,45 <b>(Width)</b> 1-2.day:%0,02 2-4.day:%0,06 4-7.day:%0,06 7-14.day:%0,10 14-28.day:%0,20 <b>(Length)</b> 1-2.day:%0,04 2-4.day:%0,05 4-7.day:%0,01 7-14.day:%0,00 14-28day:%0,02 3) Average water absorption <b>(Weight)</b> 1-2.day:%0,19 2-4.day:%0,81 4-7.day:%0,65 7-14.day:%1,17 14-28day:%1,35
	Boiling test	1) Water absorption average value in ≤7% weight 2) Water absorption individual values in ≤9% weight	3.03%

Note: Methods marked with \* are in scope of accreditation.

Abutment interval of 330 mm is stated by the firm. ( $F_{max}$ , for determination of bending and flexibility module)

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[Seal and Paraph]