



TÜRK STANDARDLARI ENSTİTÜSÜ
DENEY ve KALİBRASYON
MERKEZİ BAŞKANLIĞI
YAPI MALZEMELERİ YANGIN VE AKUSTİK
LABORATUVAR MÜDÜRLÜĞÜ



TURKISH STANDARDS INSTITUTION
HEADSHIP OF TEST and CALIBRATION CENTER
CONSTRUCTION MATERIALS FIRE AND ACOUSTICS LABORATORY

AYDINLI MAH. ULUS SOK. NO:7/1 TUZLA/İSTANBUL

Tel: +902165600561 Faks: e-mail: yalitim@tse.org.tr

www.tse.org.tr

AB-0001-T

224133-2

06-25

MUAYENE VE DENEY RAPORU
TEST REPORT

Deneyi Talep Eden/Firma : (Adı, Adresi, Şehir vb.) Requesting/Customer (Name, Address, City etc.)	EKOBORD YENİ NESİL LEVHA VE DUVAR SİSTEMLERİ A.Ş. AKŞEMSETTİN MAH. ATATÜRK CAD. VEFA /330 -332A SULTANBEYLİ/İSTANBUL
Deney Talep Tarihi / No : Order Date/No.	15.04.2025 / 2025-93688
Numunenin Tanımı : (Cins, Marka, Sınıf, Tip, Tür, Model vb.) Sample Description (Type, Mark, Class, Model etc.)	2025-128681, fibercement, ekobord, fibercement plaka, fibercement, fibercement, 1.00, set
Numune Kabul Tarihi : Sample Receipt Date	18.04.2025
Deneylerin Yapıldığı Tarih : Date of Test	24.04.2025 / 27.06.2025
Uygulanan Standart Metot : Applied Standard/Method	TS EN 13501-1/Yapı mamulleri ve yapı elemanları, yangın sınıflandırması bölüm 1: Yangın karşısındaki davranış deneylerinden elde edilen veriler kullanılarak sınıflandırma
Raporun Sayfa Sayısı : Number of pages of the report	4
Deney Sonucu : Test Result	-
Açıklamalar : Remarks	

Yukarıda tanımlanan numune için laboratuvarımızda yapılan muayene ve deneylerden elde edilen sonuçlar müteakip sayfalarda verilmiştir.
The testing and/or measurement results are given on the following pages which are part of this report.

Deney laboratuvarları olarak faaliyet gösteren TSE Deney ve Kalibrasyon Merkezi Başkanlığı Deney Laboratuvarları TÜRKAK'tan AB-0001-T ile TS EN ISO/IEC 17025:2017 standardına göre akredite edilmiştir.
TSE Headship of Test and Calibration Center Testing Laboratories accredited by TÜRKAK under registration number AB-0001-T for TS EN ISO/IEC 17025:2017 as test laboratory.
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Tarih
Date
27.06.2025

Deney Sorumlusu
Person in charge of test
KADRİYE ERYILMAZ

Kontrol Eden
Reviewer
FATİH ÖZTÜRK

Onaylayan
Approved by
SENCER GÜVEN

Bu rapor, hazırlayan laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve karekodsuz raporlar geçersizdir. Bu rapor, müşteri tarafından laboratuvara ulaştırılan numuneler üzerinde yapılan deney sonuçlarını içermekte olup, "Ürün Belgesi" yerine geçmez.
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TEST RESULTS

FIRE RESPONSE CLASSIFICATION

1. Introduction

This report contains the elements of the reaction to fire classification of the “fibercement plaka” product with the brand name “Ekobord”, which is evaluated in accordance with the explanations and descriptions presented in the TS EN 13501-1: 2019 standard.



CLASSIFICATION OF PRODUCT REACTION TO FIRE ACCORDING TO TS EN 13501-1:2019 STANDARD

Sponsoring Company (name & address)	EKOBORD YENİ NESİL LEVHA VE DUVAR SİSTEMLERİ A.Ş.
	AKŞEMSETTİN MAH. ATATÜRK CAD. VEFA /330-332A SULTANBEYLİ/İSTANBUL
Manufacturing Company (name & address)	EKOBORD YENİ NESİL LEVHA VE DUVAR SİSTEMLERİ A.Ş.
	Bilecik Kayı OSB Mah. 16.Cad. No:3 Merkez-Bilecik
Organization Preparing The Report	TSE Construction Materials Fire and Acoustics Laboratory Directorate
Classification Report Number	224133-1
Publication Date	27.06.2025
Review Type	Special review
Publication Number	1/1

This classification report consists of 4 pages and can only be used in its entirety or reproduced.



TEST RESULTS

2. Classified Product Details

2.1. General

The classified product is defined as “fibercement plaka” with the brand name “Ekobord” produced according to TS EN 12467+A2:2018 standard.

2.2. Product Description

General Product Description	Flat sheet made of fiber-reinforced cement
Brand Name	Ekobord
Model	fibercement plaka
Related Technical Document(s)	TS EN 12467+A2:2018

3. Experimental Reports and Results Supporting the Classification

3.1. Reports

The following test reports are the basis for determining this classification.

Laboratory	Sponsoring Company	Test Report Reference No	Test Method
TSE Building Materials Fire and Acoustic Laboratory Directorate	EKOBORD YENİ NESİL LEVHA VE DUVAR SİSTEMLERİ A.Ş.	224048-1	TS EN ISO 1182: 2020-11
		06-25	
TSE Building Materials Fire and Acoustic Laboratory Directorate	EKOBORD YENİ NESİL LEVHA VE DUVAR SİSTEMLERİ A.Ş.	224114-1	TS EN ISO 1716: 2018-11
		06-25	

TEST RESULTS

3.2. Results

The test results presented in the reports in Article 3.1 and the classification criteria specified for classification A1 in the TS EN 13501-1:2019 standard are shown in the table below.

Test Method	Parameter	Number of Test	Test Results and Evaluation	
			Average of continuous variables	Non-continuous variables
TS EN ISO 1182	$\Delta m \leq \% 50$	5	20,1	(-)
	$\Delta T \leq 30 \text{ }^\circ\text{C}$		11,2	(-)
	$t_f = 0 \text{ s}$		0,0	(-)
TS EN ISO 1716	$Q_{pcc} \leq 2,0 \text{ MJ/kg}$	3	0,583	(-)

4. Classification and Direct Field of Application

4.1. Classification Reference

This classification is made according to TS EN 13501-1:2019 standard clause 11.8.1.

4.2. Classification

The class of the product “fibercement plaka” with the brand name “Ekobord”, determined depending on its behavior in the face of fire:

A1

Fire Behavior	Smoke Formation	Flaming Droplets
A1	No classification	No classification
REACTION TO FIRE CLASSIFICATION : A1		

4.3. Application Field

This classification applies to products of the same type with the same formulation, the same density and the same name. Changes in product thickness do not affect the classification.

5. Restrictions

When the TS EN 13501-1:2019 standard was published, there was no decision on the validity period of the classification report.

This classification report is not a type approval or certification of the product and may not be used in place of such a document.

End of classification report.



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Test
TS EN ISO/IEC 17025
AB-0001-T

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AB-0001-T

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06-25

MUAYENE VE DENEY RAPORU
TEST REPORT

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Numunenin Tanımı : (Cins, Marka, Sınıf, Tip, Tür, Model vb.) Sample Description (Type, Mark, Class, Model etc.)	2025-128681, fibercement, ekobord, fibercement plaka, fibercement, fibercement, 1.00, set
Numune Kabul Tarihi : Sample Receipt Date	18.04.2025
Deneylerin Yapıldığı Tarih : Date of Test	24.04.2025 / 26.06.2025
Uygulanan Standart Metot : Applied Standard/Method	TS EN ISO 1182/Mamüllerin Yangına Tepki Deneyleri - Tutuşmazlık Deneyi
Raporun Sayfa Sayısı : Number of pages of the report	4
Deney Sonucu : Test Result	-
Açıklamalar : Remarks	

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Tarih
Date
26.06.2025

Deney Sorumlusu
Person in charge of test
KADRİYE ERYILMAZ

Kontrol Eden
Reviewer
FATİH ÖZTÜRK

Onaylayan
Approved by
SENCER GÜVEN

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TEST RESULTS

TS EN ISO 1182:2020-11 Reaction to fire tests for products - Non-combustibility test

Sponsoring Company (name & address)	EKOBORD YENİ NESİL LEVHA VE DUVAR SİSTEMLERİ A.Ş.
	AKŞEMSETTİN MAH. ATATÜRK CAD. VEFA /330-332A SULTANBEYLİ/İSTANBUL
Manufacturing Company (name & address)	EKOBORD YENİ NESİL LEVHA VE DUVAR SİSTEMLERİ A.Ş.
	Bilecik Kayı OSB Mah. 16.Cad. No:3 Merkez-Bilecik

Product Details

Conditioning Start Date	22.04.2025
Test Date	20.06.2025
General Description of the Product	Flat sheet made of fiber-reinforced cement
Brand Name	Ekobord
Model	fibercement plaka
Related Technical Document(s)	TS EN 12467+A2:2018
Arrival Status to Laboratory	Flat sheets
Review Type	Special review

Sampling and Preparation

The samples were identified, collected and delivered to the laboratory by the manufacturer. 45 mm diameter and 50 mm height samples were subjected to the test after conditioning.

Conditioning

TS EN 13238: 2010-03 Article 4.3 fixed time. The specimens were conditioned in an air conditioning cabinet environment with a temperature of (23±2) °C and relative humidity of (50±5) %, and before the test, they were conditioned in a ventilated oven with a temperature of (60±5) °C for 24 hours and subjected to the test.

Deviation from Test Method

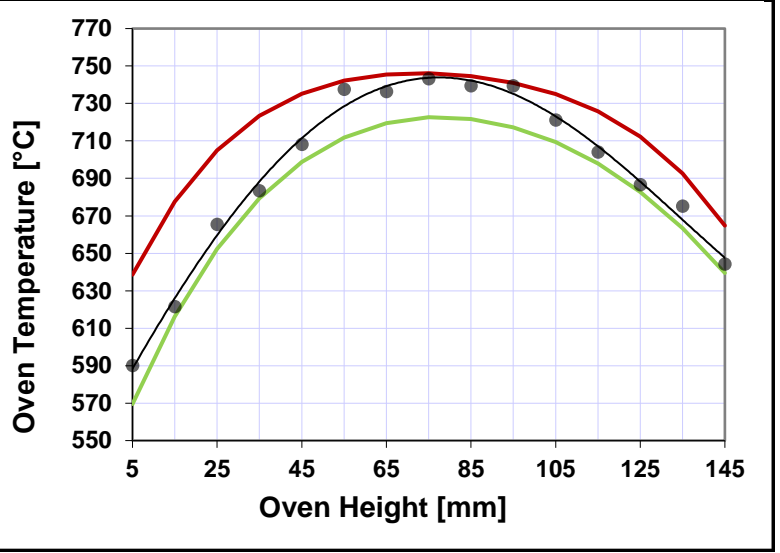
There wasn't deviation from the test method.

TEST RESULTS

Calibration

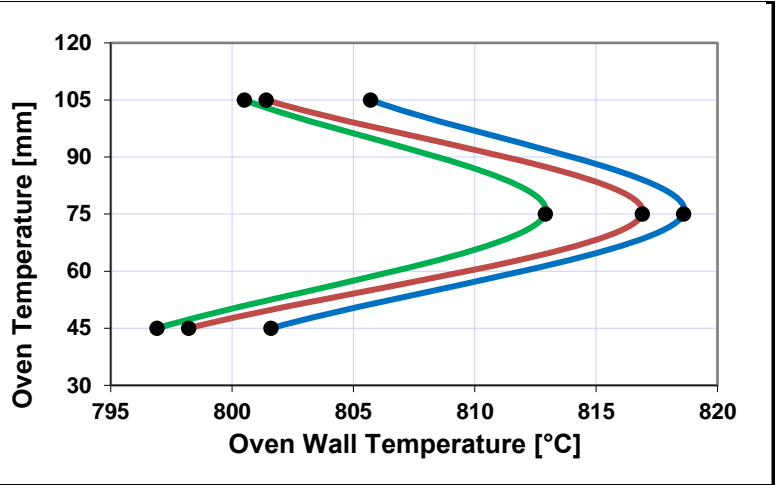
Oven Temperature

Height (mm)	T _{down} (°C)	T _{up} (°C)	T _{min} (°C)	T _{average} (°C)	T _{max} (°C)
5	590,4	589,7	569,5	590,1	638,6
15	619,4	623,8	616,2	621,6	677,5
25	663,1	667,8	652,2	665,5	704,9
35	680,6	686,4	679,3	683,5	723,5
45	705,0	711,4	698,8	708,2	735,3
55	736,1	739,1	711,9	737,6	742,2
65	735,1	737,8	719,6	736,5	745,5
75	743,8	742,7	722,7	743,3	746,1
85	738,5	740,6	721,8	739,6	744,7
95	740,6	738,5	717,3	739,6	741,1
105	721,7	720,8	709,3	721,3	735,1
115	706,8	701,4	697,9	704,1	725,8
125	689,1	684,3	682,8	686,7	712,2
135	677,2	673,1	663,5	675,2	692,6
145	646,7	641,8	639,4	644,3	664,9



Oven Wall Temperature

	Axis 1	Axis 2	Axis 3	Level Average	Level Deviation
Level 1 (105 mm)	800,5	801,4	805,7	802,53	0,412
Level 2 (75 mm)	812,9	816,9	818,6	816,13	1,275
Level 3 (45 mm)	796,9	798,2	801,6	798,90	0,863
Axis Average	803,43	808,5	808,63	805,86	0,85
	805,86				
	0,230			OK	OK
Axis Deviation	0,301	0,044	0,345		





TEST RESULTS

Test Results

Mass Loss						
Samples	1	2	3	4	5	Average
Beginning Mass	120,96	119,85	119,45	120,27	119,16	119,9
Last Mass (g)	95,74	96,25	95,18	96,89	94,99	95,8
Mass Loss(%)	20,85	19,69	20,32	19,44	20,28	20,1

Continuous flame						
Samples	1	2	3	4	5	Average
Time (s)	0	0	0	0	0	0

Oven temperature increase						
Samples	1	2	3	4	5	Average
Tm1(°C)	782,9	782,0	779,5	779,6	779,6	780,7
Tm2(°C)	780,6	780,4	779,3	779,9	779,4	780
Tf1(°C)	769,0	769,5	768,3	770,2	770,8	769,6
Tf2(°C)	767,9	769,5	768,1	769,1	769	769
ΔT ort(°C)	13,3	11,7	11,2	10,1	9,6	11,2

Tm: Maximum temperature during the test period.

Tf: Average temperature for the last 1 minute of the test.

Notes	
	-

Performance criteria determined according to the TS EN ISO 13501-1 method specified for A1 reaction to fire classification in the TS EN ISO 1182 standard

Average ΔT	Average Mass Loss (%)	Continuous (over 5 seconds) flare-up
≤30	≤50	no

This test result relates to the behavior of a test specimen of a product under the specific conditions under which the test was performed; it is not a sufficient criterion for assessing the potential fire hazard of a product in actual use.

End of the test report.



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Test
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TURKISH STANDARDS INSTITUTION
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Numune Kabul Tarihi : Sample Receipt Date	18.04.2025
Deneylerin Yapıldığı Tarih : Date of Test	24.04.2025 / 26.06.2025
Uygulanan Standart Metot : Applied Standard/Method	TS EN ISO 1716/Yapı Ürünlerinin Yangına Tepki Deneyleri – Brüt Yanma Isısının Tayini (kalorifik değer)
Raporun Sayfa Sayısı : Number of pages of the report	3
Deney Sonucu : Test Result	-
Açıklamalar : Remarks	

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KADRİYE ERYILMAZ

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TEST RESULTS

TS EN ISO 1716:2018-11 Reaction to fire tests for products - Determination of the gross heat of combustion (calorific value)

Sponsoring Company (name & address)	EKOBORD YENİ NESİL LEVHA VE DUVAR SİSTEMLERİ A.Ş.
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Manufacturing Company (name & address)	EKOBORD YENİ NESİL LEVHA VE DUVAR SİSTEMLERİ A.Ş.
	Bilecik Kayı OSB Mah. 16.Cad. No:3 Merkez-Bilecik

Product Details

Conditioning Start Date	22.04.2025
Test Date	21.06.2025
General Description of the Product	Flat sheet made of fiber-reinforced cement
Brand Name	Ekobord
Model	fibercement plaka
Related Technical Document(s)	TS EN 12467+A2:2018
Arrival Status to Laboratory	Flat sheets
Review Type	Special review

Sampling and Preparation

The samples were identified, collected and delivered to the laboratory by the manufacturer. After the 45 mm diameter and 50 mm height samples were conditioned, randomly selected samples were pounded into powder in a brass mortar and subjected to the experiment.



TEST RESULTS

Conditioning

TS EN 13238: 2010-03 Article 4.3 fixed time. The specimens were conditioned in an air conditioning cabinet environment with a temperature of (23 ± 2) °C and relative humidity of (50 ± 5) %, and before the test, they were conditioned in a ventilated oven with a temperature of (60 ± 5) °C for 24 hours and subjected to the test.

Deviation from Test Method

There wasn't deviation from the test method.

Test Results

Method	Croze
Combustion Auxiliary material	Benzoic Acid
Energy Equivalent, E,cal/K	933,47638

The average value was calculated using the gross heat of combustion values from 3 repeated experiments. The values determined are reported below.

Sample	1	2	3	Average
Qpcs(MJ/kg)	0,4229	0,6365	0,6905	0,583

This test result relates to the behavior of a test specimen of a product under the specific conditions under which the test was performed; it is not a sufficient criterion for assessing the potential fire hazard of a product in actual use.

End of test report.