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**TSE DENEY ve KALİBRASYON MERKEZİ BAŞKANLIĞI**  
**Makina ve Yapı Malzemeleri Grup Başkanlığı**  
**Yapı Malzemeleri Yangın ve Akustik Laboratuvarı Müdürlüğü**

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

HEADSHIP OF TSE TEST and CALIBRATION CENTER  
CONSTRUCTION MATERIALS FIRE AND ACOUSTICS LABORATORY DIRECTORATE

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AB-0001-T

351909

07-17

**MUAYENE VE DENEY RAPORU**  
**TEST REPORT**

<b>Deneysel Talep Eden</b> (Adı, Adresi, Şehir vb.)	:	TEPE BETOPAN YAPI MLZ.SAN.VE TİC.A.Ş.
<b>Customer</b> (Name, Address, City etc.)	:	(TEPE BETOPAN YAPI MLZ.SAN.VE TİC.A.Ş.: BEYTEPE KÖYÜ YOLU NO 5 BİLKENT --ANKARA)
<b>Deneysel Talep Tarihi/No</b> Order Date / No	:	19.06.2017 / 183698
<b>Numunenin Tanımı</b> (Cins, Marka, Tip, Tür, Model vb.)	:	ÇİMENTOLU YONGA LEVHA, BETOPAN, , , , , 0,00 -
<b>Sample Description</b> (Type, Mark, Model etc.)	:	Cement-bonded particleboard, BETOPAN, , , , , 0,00 -
<b>Numune Kabul Tarihi</b> Test Item Receipt Date	:	19.06.2017 Samples has been taken by the manufacturer
<b>Deneysel Yapıldığı Tarih</b> Date of Test	:	14.07.2017 - 24.07.2017
<b>Uygulanan Standard / Metod</b> Applied Standard/Method	:	TS EN 13501-1 + A1:2013-04 Yapı mamulleri ve yapı elemanları - Yangın sınıflandırması- Bölüm 1: Yangın karşısındaki davranış deneylerinden elde edilen veriler kullanılarak sınıflandırma TS EN 13501-1 + A1:2013-04 Fire classification of construction products and building elements - Part 1: Classification using test data from reaction to fire tests
<b>Raporun Sayfa Sayısı</b> Number of pages of the report	:	5
<b>Açıklamalar</b> Remarks	:	This report is the translation of the the test report with 02-16 date and 287040 report number and the results in this report based on the results in the previous report in question. New test has not been conducted.

Türk Akreditasyon Kurumu(TÜRKAK) deney raporlarının tanınması konusunda Avrupa Akreditasyon Birliği(EA) ve Uluslararası Laboratuvar Akreditasyon Birliği(ILAC) ile karşılıklı tanınma antlaşmasını imzalamıştır.  
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Deney ve/veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri (olması halinde) ve deney metodları bu raporun tamamlayıcı kısmı olan takip eden sayfalarda verilmiştir.  
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.

**Mühür**  
Seal

**Tarih**  
Date

24.07.2017

**Deneysel Sorumlusu**  
Person in charge of tests

Alpay SÜMER  
Uzman

**Kontrol Eden**  
Reviewer

Sencer GÜVEN  
Teknik Şef

**Onaylayan**  
Approved by

Metehan ÇALIŞ  
Laboratuvar Müdürü

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



## REACTION TO FIRE CLASSIFICATION

### 1 Introduction

This classification report defines the classification assigned to the product **BETOPAN Cement-bonded particleboard** in accordance with the procedures given in the standard TS EN 13501-1+A1: 2010 Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests.



## REACTION TO FIRE CLASSIFICATION ACCORDING TO TS EN 13501-1

Sponsor	TEPE BETOPAN YAPI MALZEMELERİ SAN. VE TİC. A.Ş.
Prepared by	TSE Construction Products Fire and Acoustics Laboratory
Notified Body No.	1783
Product name	BETOPAN Cement-bonded particleboard
Classification report No.	351909 / 07-17
Issue number	2/2
Date of issue	24.07.2017

This classification report consists of 5 pages and may only be used or reproduced in its entirety.

### 2 Details of Classified Product

#### 2.1 General

The product “BETOPAN Cement-bonded particleboard” is defined as a cement-bonded particleboard which is produced according to TS EN 634-2.

#### 2.2 Product Description

The properties of “BETOPAN Cement-bonded particleboard” were indicated in the below table.

Arrival Date	13.01.2016
Trade Name	BETOPAN
Product Standard	TS EN 634-2
Thickness	(8 – 20) mm
Density	1300 kg/m <sup>3</sup>





## REACTION TO FIRE CLASSIFICATION

### 3 Test Reports and Results in Support of This Classification Report

#### 3.1 Reports

Following test reports were taken into account in the determination of this classification.

Laboratory	Sponsor	Test Report Ref. No	Test Method
HEADSHIP OF TSE TEST and CALIBRATION CENTER CONSTRUCTION MATERIALS FIRE AND ACOUSTICS LABORATORY	TEPE BETOPAN YAPI MALZEMELERİ SAN. VE TİC. A.Ş.	287037 / 02-16	TS EN ISO 11925-2: 2011
HEADSHIP OF TSE TEST and CALIBRATION CENTER CONSTRUCTION MATERIALS FIRE AND ACOUSTICS LABORATORY	TEPE BETOPAN YAPI MALZEMELERİ SAN. VE TİC. A.Ş.	287038 / 02-16	TS EN 13823: 2010 +A1: 2014

#### 3.2 Results

Results of the above mentioned test reports and the classification criteria corresponding to class B-s1, d0 as stated in TS EN 13501-1+A1: 2010 are given in the following table.

##### 3.2.1

8 mm thickness				
Test Method	Parameter	No. of Tests	Test Results	
			Mean of Continous Parameters	Non-continous Parameters
TS EN 13823+A1	FIGRA $\leq$ 120 W/s	3	10,10	(-)
	THR <sub>600s</sub> $\leq$ 7,5 MJ		1,26	(-)
	SMOGRA $\leq$ 30 m <sup>2</sup> /s <sup>2</sup>		0	(-)
	TSP <sub>600s</sub> $\leq$ 50 m <sup>2</sup>		20,93	(-)
	LFS < Edge of the sample		(-)	LFS < Edge
	No flaming droplets in 600 s		(-)	No flaming droplets
TS EN ISO 11925-2 (Exposure = 30 s)	F <sub>s</sub> $\leq$ (150 mm) within 60 s	6	(-)	F <sub>s</sub> $\leq$ (150 mm) within 60 s
	Ignition of the filter paper		(-)	No

(-) Not applicable

##### 3.2.2

10 mm thickness				
Test Method	Parameter	No. of Tests	Test Results	
			Mean of Continous Parameters	Non-continous Parameters
TS EN 13823+A1	FIGRA $\leq$ 120 W/s	3	5,05	(-)
	THR <sub>600s</sub> $\leq$ 7,5 MJ		0,80	(-)
	SMOGRA $\leq$ 30 m <sup>2</sup> /s <sup>2</sup>		0	(-)
	TSP <sub>600s</sub> $\leq$ 50 m <sup>2</sup>		20,86	(-)
	LFS < Edge of the sample		(-)	LFS < Edge
	No flaming droplets in 600 s		(-)	No flaming droplets
TS EN ISO 11925-2 (Exposure = 30 s)	F <sub>s</sub> $\leq$ (150 mm) within 60 s	6	(-)	F <sub>s</sub> $\leq$ (150 mm) within 60 s
	Ignition of the filter paper		(-)	No

(-) Not applicable





## REACTION TO FIRE CLASSIFICATION

### 3.2.3

20 mm thickness				
Test Method	Parameter	No. of Tests	Test Results	
			Mean of Continous Parameters	Non-continous Parameters
TS EN 13823+A1	FIGRA $\leq$ 120 W/s	3	2,37	(-)
	THR <sub>600s</sub> $\leq$ 7,5 MJ		0,73	(-)
	SMOGRA $\leq$ 30 m <sup>2</sup> /s <sup>2</sup>		0	(-)
	TSP <sub>600s</sub> $\leq$ 50 m <sup>2</sup>		20,20	(-)
	LFS < Edge of the sample		(-)	LFS < Edge
	No flaming droplets in 600 s		(-)	No flaming droplets
TS EN ISO 11925-2 (Exposure = 30 s)	F <sub>s</sub> $\leq$ (150 mm) within 60 s	6	(-)	F <sub>s</sub> $\leq$ (150 mm) within 60 s
	Ignition of the filter paper		(-)	No

(-) Not applicable

## 4 Classification and Direct Field of Application

### 4.1 Reference of classification

This classification has been carried out in accordance with clauses 11.6, 11.9.2 and 11.10.1 of TS EN 13501-1 + A1: 2013.

### 4.2 Classification

In relation to its reaction to fire behaviour, the product BETOPAN Cement-bonded particleboard has been classified as:

**B**

In relation to its smoke production behaviour, the product BETOPAN Cement-bonded particleboard has been classified as:

**s1**

In relation to its flaming droplets behaviour the product BETOPAN Cement-bonded particleboard has been classified as:

**d0**

Fire behaviour	Smoke production	Flaming droplets
B	s1	d0

**Reaction to Fire Classification: B-s1, d0**





## REACTION TO FIRE CLASSIFICATION

### 4.3 Direct Field of application

This classification is valid for the products manufactured with the same recipe, having the same trade name and properties when the end use involves the following applications:

Parameters	Range of validity
Thickness	8 mm – 20 mm
Density	1250 kg/m <sup>3</sup> – 1350 kg/m <sup>3</sup>

### 5 Limitations

At the time of publishing of the standard TS EN 13501-1+A1: 2010, there was not any decision concerning the duration of validity of a classification report

The present document represents neither type approval nor certification of the product.

*End of classification report.*

