



**TÜRK STANDARDLARI ENSTİTÜSÜ**  
**DENEY ve KALİBRASYON**  
**MERKEZİ BAŞKANLIĞI**  
**Yapı Malzemeleri Yangın ve Akustik**  
**Laboratuvarı Müdürlüğü**



*TURKISH STANDARDS INSTITUTION*  
*HEADSHIP OF TEST and CALIBRATION CENTER*  
*Construction Materials Fire and Acoustics Laboratory Directorate*  
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AB-0001-T

591451

02-21

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

<b>Deneysel Talep Eden/Firma</b> (Adı, Adresi, Şehir vb.) <i>Requesting/Customer</i> (Name, Address, City etc.)	: İZODOOR SOĞUK ODA KAPI VE PANEL SİS. SAN. DIŞ. TİC. LTD. ŞTİ (İZODOOR SOĞUK ODA KAPI VE PANEL SİS. SAN. DIŞ. TİC. LTD. ŞTİ: ŞEKERPİNAR MAH. ARDINÇ SK. NO:4 ZEMİN KAT Gebze-KOCAELİ)
<b>Deneysel Talep Tarihi/No</b> <i>Order Date / No</i>	: 18.02.2021 / 544812
<b>Numunenin Tanımı</b> (No, Cins, Marka, Tip, Tür, Model vb.) <i>Sample Description</i> (No, Type, Model etc.)	: 721666,100 mm kalınlıklı, PIR dolgulu, kendini taşıyan çift yüzeyli RAL 9002 boyalı metal kaplamalı kilitli soğuk oda paneli, İZODOOR , , - , - , 1.00 set 721666,100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides, İZODOOR, -, -, 1.00 set
<b>Numune Kabul Tarihi</b> <i>Test Item Receipt Date</i>	: 18.02.2021
<b>Deneysel Yapıldığı Tarih</b> <i>Date of Test</i>	: 25.02.2021 - 25.02.2021
<b>Uygulanan Standard / Metot</b> <i>Applied Standard/Method</i>	: TS EN 13501-1: 2019-12 Yapı mamulleri ve yapı elemanları, yangın sınıflandırması bölüm 1: Yangın karşısındaki davranış deneylerinden elde edilen veriler kullanılarak sınıflandırma <i>TS EN 13501-1: 2019-12 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests</i>
<b>Raporun Sayfa Sayısı</b> <i>Number of pages of the report</i>	: 5
<b>Açıklamalar</b> <i>Remarks</i>	: BU RAPOR 12-ARALIK-2019 TARİHLİ VE 504440 SAYILI RAPORUN ÇEVİRİSİDİR. THIS REPORT IS A LITERAL TRANSLATION OF 12-DECEMBER-2019 DATED AND 504440 NUMBERED REPORT.

**Deneysel laboratuvarları olarak faaliyet gösteren TSE Deneysel ve Kalibrasyon Merkezi Başkanlığı Deneysel Laboratuvarları TÜRKAK'tan AB-0001-T ile TS EN ISO/IEC 17025:2012 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 17025:2012 as test laboratory.*

**TÜRKAK deneysel raporlarının tanınırlığı konusunda Avrupa Akreditasyon Birliği (EA) ile Çok Taraflı Anlaşma ve Uluslararası Laboratuvar Akreditasyon Birliği (ILAC) ile karşılıklı tanıma anlaşması imzalamıştır.**  
*TURKAK is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.*

Deneysel ve/veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri (olması halinde) ve deneysel 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**  
**Tarih**  
**Deneysel Sorumlusu**  
*Person in charge of tests*  
Hatun ÇAYIR  
Deneysel Personeli  
Testing Expert

**Onaylayan**  
*Approved by*

Sencer GÜVEN  
Laboratuvar Müdürü V.  
Laboratory Manager Dep.

Bu rapor, hazırlayan laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mührsüz raporlar geçersizdir. Bu rapor, sadece deneysel yapılan numune için geçerlidir. "Ürün Belgesi" yerine geçmez.  
*This test report shall not be reproduced other than in full except with the written permission of the laboratory. Test reports without signature and seal are not valid. This test report represents only tested sample(s), and shall not be used as Product Certificate*



## MUAYENE - DENEY SONUÇLARI TEST RESULTS

### REACTION TO FIRE CLASSIFICATION

#### 1. Introduction

This classification report defines the classification assigned to the product “trademarked İZODOOR, 100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides” in accordance with the procedures given in the standard TS EN 13501-1+A1: 2013 using data from reaction to fire tests.



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

<b>SPONSOR</b> (Name&Address)	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ
	Şekerpınar Mah. Sümbül Sk. No:6 Çayırova/Gebze/KOCAELİ
<b>DEMANDED BY</b> (Name&Address)	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ
	Şekerpınar Mah. Sümbül Sk. No:6 Çayırova/Gebze/KOCAELİ
<b>MANUFACTURER</b> (Name&Address)	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ
	Şekerpınar Mah. Sümbül Sk. No:6 Çayırova/Gebze/KOCAELİ
<b>PREPARED BY</b>	TSE Construction Materials Fire and Acoustics Laboratory
<b>CLASSIFICATION REPORT NO.</b>	504440
<b>DATE OF ISSUE</b>	25.02.2021
<b>ISSUE NUMBER</b>	1/2

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 classified product is manufactured according to TS EN 14509:2014 defined as “trademarked İZODOOR, 100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides”

##### 2.2. Product Description

<b>General Description</b>	100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides
<b>Trademark</b>	İZODOOR
<b>Related Specification(s)</b>	TS EN 14509:2014





## MUAYENE - DENEY SONUÇLARI TEST RESULTS

Samples Properties (Designated Features)		
Metal facings	Grade of metal	Steel
	Profile geometry of inside facing	Flat or light profiling up to 5 mm
	Colour of coating	White (RAL 9002)
	Thickness of metal facing excluding organic coatings	Internal Face:0,60 mm (avg.) External Face:0,54 mm (avg.)
Joint design	Joint type	Type V
PIR insulating core	Density	49,57 kg/m <sup>3</sup> (avg.)
Panel thickness	(D)	100,68 mm
Orientation of panels	Horizontal-vertical	Vertical
Fixings for metal flashings	Standard spacing	400 mm
Metal corner flashings	Internal corner flashings	50 mm x 50 mm x 0,5 mm
	External corner flashings	100 mm x 50 mm x 0,5 mm
Raw material supplier	AREKS KİMYA OTOMOTİV SANAYİ VE DIŞ TİCARET A.Ş.	
Raw material	Poliol Sistem RX 121-35	

### 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 Reference No	Test Method
TSE Construction Materials Fire and Acoustics Laboratory	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ	504437	TS EN ISO 11925-2: 2011-04
		02-21	
TSE Construction Materials Fire and Acoustics Laboratory	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ	504438	TS EN 13823+A1: 2015-02
		02-21	





## MUAYENE - DENEY SONUÇLARI TEST RESULTS

### 3.2. Results

Results of the test reports mentioned in 3.1 and the classification criteria corresponding to class B-s2,d0 as stated in TS EN 13501-1+A1:2013 are given in the following table.

Test Method	Parameter	Number of Tests	Test Results	
			Mean of continous parameters	Non-continous parameters
TS EN ISO 11925-2 (30 s surface exposure)	Fs in 60 s $\leq$ 150 mm	6	(-)	Flames did not reach 150 mm treshold
	No ignition of filter paper		(-)	No ignition
TS EN ISO 11925-2 (30 s edge exposure)	Fs in 60 s $\leq$ 150 mm	6	(-)	Flames did not reach 150 mm treshold
	No ignition of filter paper		(-)	No ignition
TS EN 13823+A1	FIGRA $\leq$ 120 W/s	3	27,11	(-)
	THR <sub>600s</sub> $\leq$ 7,5 MJ		2,40	(-)
	LFS < Edge of the sample		(-)	LFS < Edge
	SMOGR <sub>A</sub> $\leq$ 180 m <sup>2</sup> /s <sup>2</sup>		11,94	(-)
	TSP <sub>600s</sub> $\leq$ 200 m <sup>2</sup>		131,96	(-)
	No flaming droplets in 600 s		(-)	No flaming droplets

(-) Not applicable.

### 4. Classification and Direct Field of Application

#### 4.1. Reference of classification

This classification has been carried out in accordance with clause 11.6, clause 11.9.3 and clause 11.10.1 of TS EN 13501-1 + A1: 2013

#### 4.2. Classification

In relation to its reaction to fire behaviour, the product “trademarked İZODOOR, 100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides” has been classified as:

**B**

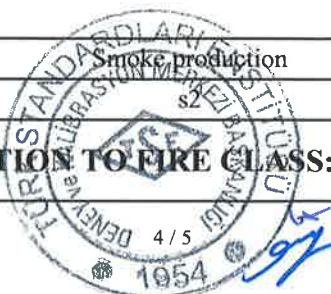
In relation to its reaction to fire behaviour, the product “trademarked İZODOOR, 100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides” has been classified as:

**s2**

In relation to its reaction to fire behaviour, the product “trademarked İZODOOR, 100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides” has been classified as:

**d0**

Fire behaviour	Smoke production	Flaming droplets
B	s2	d0
<b>REACTION TO FIRE CLASS: B-s2,d0</b>		





## MUAYENE - DENEY SONUÇLARI TEST RESULTS

### 4.3. Field of Application

This classification is valid for the products manufactured with the same recipe, same type, under the same product name and product details defined in 2.1 in the following end use applications.

PARAMETER	FACTORS	VALIDITY OF TEST
Metal facings	Grade of metal	Steel
	Profile geometry of inside facing	Valid for other types of flat or light profile up to 5 mm
	Colour of coating – Tested face:White (RAL 9002)	All colours
	Thickness of metal facing excluding organic coatings- Tested thickness: 0,60 mm	All thicknesses between 0,60 mm – 1,20 mm
Joint design	Joint type:Type V	All types of joint shown in TS EN 14509 Figure C.3
PIR insulating core	Density:49,57 kg/m <sup>3</sup>	All densities between 42,13 kg/m <sup>3</sup> - 57,01 kg/m <sup>3</sup>
Panel thickness	Thickness: 100 mm	All thicknesses between 85,58 mm - 115,78 mm
Orientation of panels	Tested vertically	Vertically and horizontally installed all panels and ceiling applications
Fixings for metal flashings	Standard spacing is 400 mm	Fixing spacing of 400 mm or less
Metal corner flashings	Material:Steel	Valid for end use flashings of same material as that tested and of at least the 50 mm width and 0,5 mm thickness
	Internal corner flashings	
	External corner flashings	

-In applications where the bottom side of the construction is covered by means of metal U profiles fixed mechanically, covering the PIR core and the adjacent metal facings upto 40 mm height; thus preventing a potential fire to directly contact the core material.

### 5. Limitations

At the time of publishing of the standard TS EN 13501-1+A1: 2013, there wasn't 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.*





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*www.tse.org.tr*

AB-0001-T

591450

02-21

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

<b>Deneyi Talep Eden/Firma</b> (Adı, Adresi, Şehir vb.) <i>Requesting/Customer</i> (Name, Address, City etc.)	: İZODOOR SOĞUK ODA KAPI VE PANEL SIS. SAN. DIŞ. TIC. LTD. ŞTİ (İZODOOR SOĞUK ODA KAPI VE PANEL SIS. SAN. DIŞ. TIC. LTD. ŞTİ; ŞEKERPINAR MAH. ARDINÇ SK. NO:4 ZEMİN KAT Gebze-KOCAELİ)
<b>Deney Talep Tarihi/No</b> <i>Order Date / No</i>	: 18.02.2021 / 544812
<b>Numunenin Tanımı</b> (No, Cins, Marka, Tip, Tür, Model vb.) <i>Sample Description (No, Type, Model etc.)</i>	: 721666,100 mm kalınlıklı, PIR dolgulu, kendini taşıyan çift yüzeyli RAL 9002 boyalı metal kaplamalı kilitti soğuk oda paneli, İZODOOR , , - , - , 1,00 set 721666,100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides, İZODOOR, -, -, 1,00 set
<b>Numune Kabul Tarihi</b> <i>Test Item Receipt Date</i>	: 18.02.2021
<b>Deneylerin Yapıldığı Tarih</b> <i>Date of Test</i>	: 25.02.2021 - 25.02.2021
<b>Uygulanan Standard / Metot</b> <i>Applied Standard/Method</i>	: TS EN 13823: 2020-11 Yapı ürünleri için yangına tepki deneyleri-Tek bir yakma unsuru ile ısı etkisine maruz kalan-Döşemeler haricindeki yapı ürünleri TS EN 13823: 2020-11 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item
<b>Raporun Sayfa Sayısı</b> <i>Number of pages of the report</i>	: 8
<b>Açıklamalar</b> <i>Remarks</i>	: BU RAPOR 12-ARALIK-2019 TARİHLİ VE 504438 SAYILI RAPORUN ÇEVİRİSİDİR. THIS REPORT IS A LITERAL TRANSLATION OF 12-DECEMBER-2019 DATED AND 504438 NUMBERED REPORT.
<b>Deney laboratuvarları olarak faaliyet gösteren TSE Deney ve Kalibrasyon Merkezi Başkanlığı Deney Laboratuvarları TÜRKAK'tan AB-0001-T ile TS EN ISO/IEC 17025:2012 standardına göre akredite edilmiştir.</b> <i>TSE Headship of Test and Calibration Center Testing Laboratories accredited by TÜRKAK under registration number AB-0001-T for TS EN ISO/IEC 17025:2012 as test laboratory.</i>	
<b>TÜRKAK deney raporlarının tanınırlığı konusunda Avrupa Akreditasyon Birliği (EA) ile Çok Taraflı Anlaşma ve Uluslararası Laboratuvar Akreditasyon Birliği (ILAC) ile karşılıklı tanıma anlaşması imzalamıştır.</b> <i>TURKAK is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.</i>	
Deney ve/veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri (olması halinde) ve deney metodları bu raporun tamamlayıcı kısmı olan takip eden sayfalarda verilmiştir. <i>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.</i>	

Mühür Tarih

Deney Sorumlusu  
Person in charge of tests

Onaylayan  
Approved by



Harun ÇAYIR  
Deney Personeli  
Testing Expert

Sencer GÜVEN  
Laboratuvar Müdürü V.  
Laboratory Manager Dep.

Bu rapor, hazırlayan laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mührsüz raporlar geçersizdir. Bu rapor, sadece deneyi yapılan numune için geçerlidir ve "Ürün Belgesi" yerine geçmez.  
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## MUAYENE - DENEY SONUÇLARI TEST RESULTS

### TS EN 13823+A1:2015-02 Building products excluding floorings exposed to the thermal attack by a single burning item (SBI TEST)

SPONSOR (Name&Address)	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ
	Şekerpınar Mah. Sümbül Sk. No:6 Çayırova/Gebze/KOCAELİ
DEMANDED BY (Name&Address)	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ
	Şekerpınar Mah. Sümbül Sk. No:6 Çayırova/Gebze/KOCAELİ
MANUFACTURER (Name&Address)	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ
	Şekerpınar Mah. Sümbül Sk. No:6 Çayırova/Gebze/KOCAELİ

#### Sample Details

Arrival Date	21.11.2019
Test Date	10.12.2019
General Description	100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides.
Trademark	İZODOOR
Related Specification(s)	TS EN 14509:2014
Purpose of Inspection	Special Test Request

#### Samples Properties (Designated Features) for 100 mm thick samples

Metal facings	Grade of metal	Steel
	Profile geometry of inside facing	Flat or light profiling up to 5 mm
	Colour of coating	White (RAL 9002)
	Thickness of metal facing excluding organic coatings	Internal Face:0,60 mm (avg.) External Face:0,54 mm (avg.)
Joint design	Joint type	Type V
PIR insulating core	Density	49,57 kg/m <sup>3</sup> (avg.)
Panel thickness	(D)	100,68 mm
Orientation of panels	Horizontal-vertical	Vertical
Fixings for metal flashings	Standard spacing	400 mm
Metal corner flashings	Internal corner flashings	50 mm x 50 mm x 0,5 mm
	External corner flashings	100 mm x 50 mm x 0,5 mm
Raw material supplier	AREKS KİMYA OTOMOTİV SANAYİ VE DIŞ TİCARET A.Ş.	
Raw material	Poliol Sistem RX 121-35	



## MUAYENE - DENEY SONUÇLARI TEST RESULTS

### Sample Collection and Preparation

Samples were prepared by the manufacturer according to TS EN 14509:2014-04 Annex C, clause C.1.1.3 and they were delivered to the laboratory. The mounting was done according to TS EN 14509:2014-04 Annex C, clause C.1.1.3.2. In addition, the open PIR core on the bottom side and the adjacent metal facings were covered with metal U profile pieces with dimensions 40 mm x 100 mm x 40 mm, fixed by means of mechanical fixing elements. The images of U profile mounting were given below. The metal flashings were fixed on top of the mentioned U profile on the bottom side.

The tests were performed with 40 mm air gap behind sample.

The tests were performed without any insulation behind the sample.



Photograph 1. Mounting of metal U profil on the bottom side of the specimen.



Photograph 2. Mounting of metal U profil on the bottom side of short wing.



Photograph 3. Mounting of metal U profil on the bottom side of long wing.



Photograph 4. Mounting of the top side of the specimen.



## MUAYENE - DENEY SONUÇLARI TEST RESULTS

### Conditioning

The samples were conditioned for fixed period at the temperature of 23 °C ± 2 °C and 50% ± 5% relative humidity for 19 days according to clause 4.3 of EN 13238.

### Deviations from the Test Method

There was no deviation from the test method.

### Test Results

#### Sample 1:

FIGRA <sub>0.2 MJ</sub> (W/s)	30,07
FIGRA <sub>0.4 MJ</sub> (W/s)	30,07
FIGRA (W/s)	30,07
THR <sub>600s</sub> (MJ)	3,61
Lateral flame spread upto the edge	No
SMOGRA (m <sup>2</sup> /s <sup>2</sup> )	13,67
TSP <sub>600s</sub> (m <sup>2</sup> )	171,32

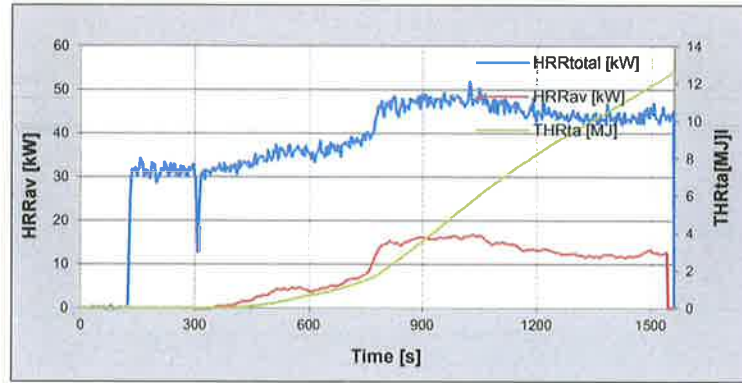


Figure 1. Plot of HRRav(t) , HRRav-30s and THR for Sample 1

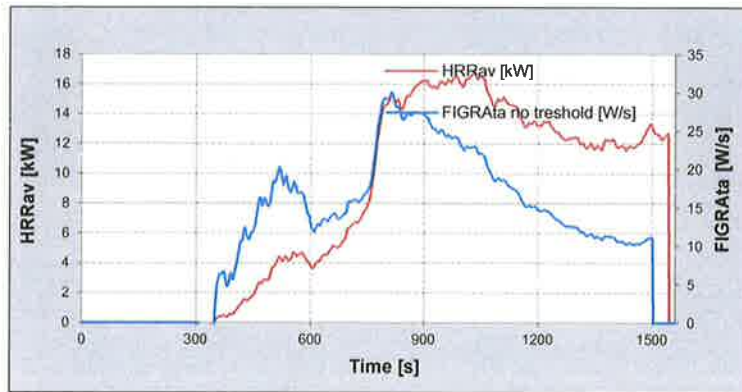


Figure 2. Plot of 1000 x HRRav(t)/(t-300) for Sample 1



## MUAYENE - DENEY SONUÇLARI TEST RESULTS

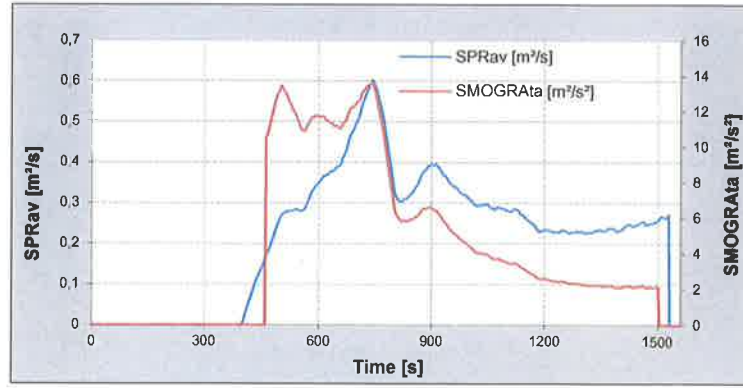


Figure 3. Plot of SPRav(t) for Sample 1

### Sample 2:

FIGRA <sub>0,2 MJ</sub> (W/s)	25,88
FIGRA <sub>0,4 MJ</sub> (W/s)	15,57
FIGRA (W/s)	25,88
THR <sub>600s</sub> (MJ)	1,65
Lateral flame spread upto the edge	No
SMOGRA (m <sup>2</sup> /s <sup>2</sup> )	9,03
TSP <sub>600s</sub> (m <sup>2</sup> )	99,81

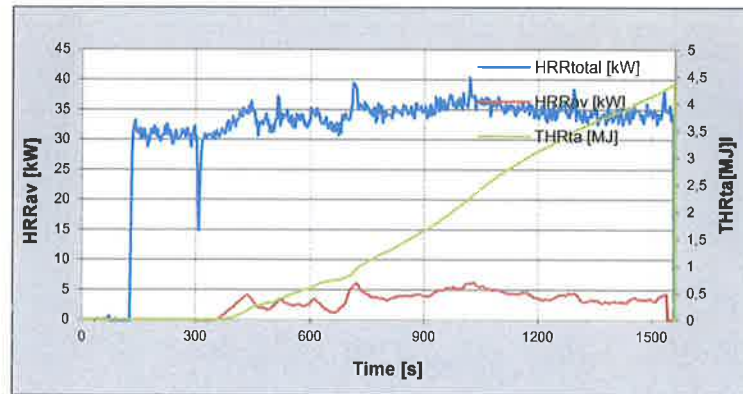


Figure 4. Plot of HRRav(t) , HRRav-30s and THR for Sample 2

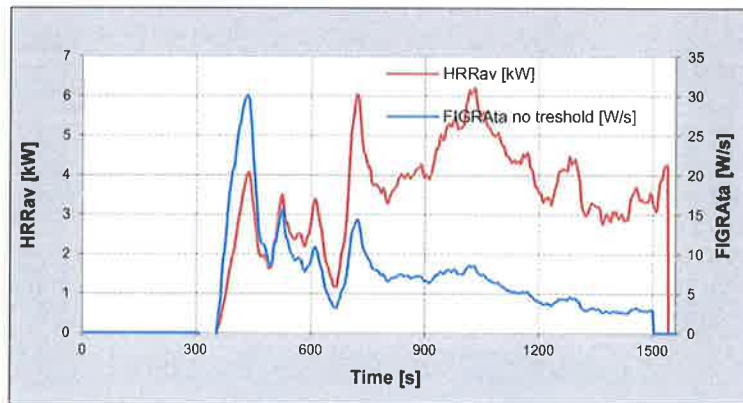


Figure 5. Plot of  $1000 \times \frac{HRRav(t)}{(t-300)}$  for Sample 2



## MUAYENE - DENEY SONUÇLARI TEST RESULTS

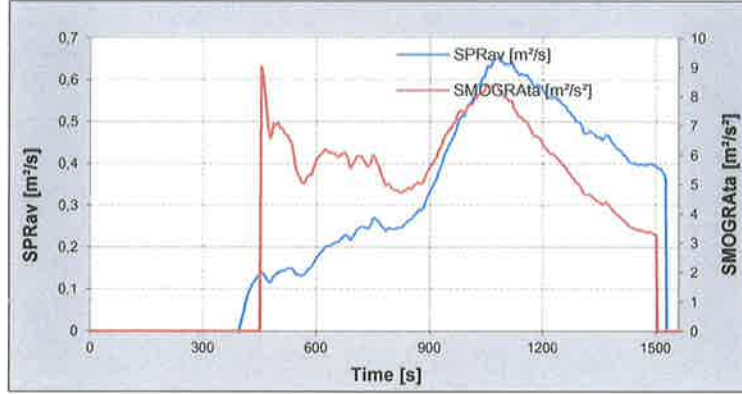


Figure 6. Plot of SPRav(t) for Sample 2

### Sample 3:

FIGRA <sub>0.2 MJ</sub> (W/s)	25,37
FIGRA <sub>0.4 MJ</sub> (W/s)	24,12
FIGRA (W/s)	25,37
THR <sub>600s</sub> (MJ)	1,94
Lateral flame spread upto the edge	No
SMOGRA (m <sup>2</sup> /s <sup>2</sup> )	13,11
TSP <sub>600s</sub> (m <sup>2</sup> )	124,76

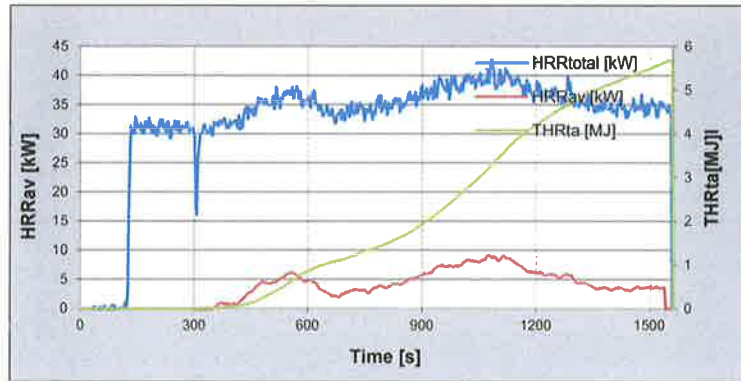


Figure 7. Plot of HRRav(t) , HRRav-30s and THR for Sample 3

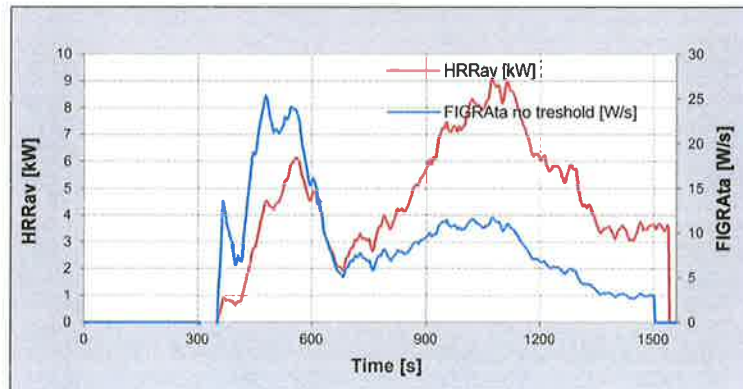


Figure 8. Plot of  $1000 \cdot \frac{HRRav(t)}{(t-300)}$  for Sample 3



## MUAYENE - DENEY SONUÇLARI TEST RESULTS

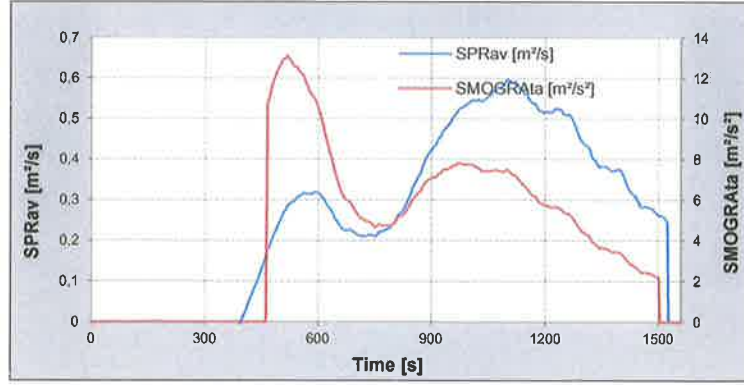


Figure 9. Plot of  $SPR_{av}(t)$  for Sample 3

### General

	SAMPLE 1	SAMPLE 2	SAMPLE 3	AVARAGE
FIGRA (W/s)	30,07	25,88	25,37	27,11
FIGRA <sub>0,2 MJ</sub> (W/s)	30,07	25,88	25,37	27,11
FIGRA <sub>0,4 MJ</sub> (W/s)	30,07	15,57	24,12	23,25
THR <sub>600s</sub> (MJ)	3,61	1,65	1,94	2,40
Lateral flame spread upto the edge	No	No	No	No
SMOGRA (m²/s²)	13,67	9,03	13,11	11,94
TSP <sub>600s</sub> (m²)	171,32	99,81	124,76	131,96

### Photographs

The photographs of the samples taken in accordance to clause 5.3.3 of TS EN 13823+A1:2015 are given below.



Photograph 5. Long wing detail of Sample 1



Photograph 6. Corner detail of Sample 1



## MUAYENE - DENEY SONUÇLARI TEST RESULTS



Photograhp 7. Long wing detail of Sample 1 (After test)



Photograhp 8. Corner detail of Sample 1 (After test)

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

*End of test report.*





**TÜRK STANDARDLARI ENSTİTÜSÜ**  
**DENEY ve KALİBRASYON**  
**MERKEZİ BAŞKANLIĞI**  
**Yapı Malzemeleri Yangın ve Akustik**  
**Laboratuvarı Müdürlüğü**



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02-21

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

**Deneyi Talep Eden/Firma** : İZODOOR SOĞUK ODA KAPI VE PANEL SİS. SAN. DIŞ. TİC. LTD. ŞTİ  
(Adı, Adresi, Şehir vb.)  
**Requesting/Customer** : (İZODOOR SOĞUK ODA KAPI VE PANEL SİS. SAN. DIŞ. TİC. LTD. ŞTİ;  
(Name, Address, City etc.) ŞEKERPINAR MAH. ARDINÇ SK. NO:4 ZEMİN KAT Gebze-KOCAELİ)

**Deney Talep Tarihi/No** : 18.02.2021 / 544812  
**Order Date / No**

**Numunenin Tanımı** : 721666,100 mm kalınlıklı, PIR dolgulu, kendini taşıyan çift yüzeyli RAL 9002 boyalı metal kaplamalı kilitli  
(No, Cins, Marka, Tip, Tür, Model vb.) soğuk oda paneli, İZODOOR, -, -, -, 1,00 set  
**Sample Description** (No, Type, Model etc.) 721666,100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides, İZODOOR, -, -, -, 1,00 set

**Numune Kabul Tarihi** : 18.02.2021  
**Test Item Receipt Date**

**Deneylerin Yapıldığı Tarih** : 25.02.2021 - 25.02.2021  
**Date of Test**

**Uygulanan Standard / Metot** : TS EN ISO 11925-2: 2020-07 Yangına tepki testleri - Doğrudan alev çarpmasına maruz  
**Applied Standard/Method** kalan ürünlerin tutuşabilirliği - Bölüm 2: Tek alev kaynağı testi  
TS EN ISO 11925-2: 2020-07 Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test

**Raporun Sayfa Sayısı** : 3  
**Number of pages of the report**

**Açıklamalar** : BU RAPOR 12-ARALIK-2019 TARİHLİ VE 504437 SAYILI RAPORUN ÇEVİRİSİDİR.  
**Remarks** THIS REPORT IS A LITERAL TRANSLATION OF 12-DECEMBER-2019 DATED AND 504437 NUMBERED REPORT.

**Deney laboratuvarları olarak faaliyet gösteren TSE Deney ve Kalibrasyon Merkezi Başkanlığı Deney Laboratuvarları TÜRKAK'tan AB-0001-T ile TS EN ISO/IEC 17025:2012 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 17025:2012 as test laboratory.**

**TÜRKAK deney raporlarının tanınırlığı konusunda Avrupa Akreditasyon Birliği (EA) ile Çok Taraflı Anlaşma ve Uluslararası Laboratuvar Akreditasyon Birliği (ILAC) ile karşılıklı tanıma anlaşması imzalamıştır.**  
**TURKAK is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.**

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** **Tarih**  
**Seal** **Date**

**Deney Sorumlusu**  
**Person in charge of tests**

**Onaylayan**  
**Approved by**



Harun ÇAYIR  
Deney Personeli  
Testing Expert

Sencer GÜVEN  
Laboratuvar Müdürü V.  
Laboratory Manager Dep.

Bu rapor, hazırlayan laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. Bu rapor, sadece deneyi yapılan numune için geçerlidir ve "Ürün Belgesi" yerine geçmez.  
**This test report shall not be reproduced other than in full except with the written permission of the laboratory. Test reports without signature and seal are not valid. This test report represents only tested sample(s), and shall not be used as Product Certificate**



## MUAYENE - DENEY SONUÇLARI TEST RESULTS

### TS EN ISO 11925-2:2011-04 Ignitability of building products subjected to direct impingement of flame – Single-flame source test

SPONSOR (Name& Address)	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ
	Şekerpinar Mah. Sümbül Sk. No:6 Çayırova/Gebze/KOCAELİ
DEMANDED BY (Name& Address)	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ
	Şekerpinar Mah. Sümbül Sk. No:6 Çayırova/Gebze/KOCAELİ
MANUFACTURER (Name& Address)	İZODOOR SOĞUK ODA KAPI PANEL SİSTEMLERİ
	Şekerpinar Mah. Sümbül Sk. No:6 Çayırova/Gebze/KOCAELİ

#### Sample Details

Arrival Date	21.11.2019
Test Date	10.12.2019
General Description	100 mm thick, self supporting cold storage panel with PIR core and RAL 9002 painted metal facings on both sides.
Trademark	İZODOOR
Related Specification(s)	TS EN 14509:2014
Purpose of Inspection	Special Test Request

#### Samples Properties (Designated Features) for 100 mm thick samples

Metal facings	Grade of metal	Steel
	Profile geometry of inside facing	Flat or light profiling up to 5 mm
	Colour of coating	White (RAL 9002)
	Thickness of metal facing excluding organic coatings	Internal Face:0,60 mm (avg.) External Face:0,54 mm (avg.)
Joint design	Joint type	Type V
PIR insulating core	Density	49,57 kg/m <sup>3</sup> (avg.)
Panel thickness	(D)	100,68 mm
Orientation of panels	Horizontal-vertical	Vertical
Fixings for metal flashings	Standard spacing	400 mm
Metal corner flashings	Internal corner flashings	50 mm x 50 mm x 0,5 mm
	External corner flashings	100 mm x 50 mm x 0,5 mm
Raw material supplier	AREKS KİMYA OTOMOTİV SANAYİ VE DIŞ TİCARET A.Ş.	
Raw material	Poliol Sistem RX 121-35	

#### Sample Collection and Preparation

The samples were prepared and sent to the laboratory according to Annex C of TS EN 14509:2014 by the manufacturer with the dimensions 250 mm x 90 mm and 60 mm (thickness) for the test.





## MUAYENE - DENEY SONUÇLARI TEST RESULTS

### Conditioning

The samples were conditioned for fixed period at the temperature of  $23\text{ °C} \pm 2\text{ °C}$  and  $50\% \pm 5\%$  relative humidity for 19 days according to clause 4.3 of EN 13238.

### Deviations from the Test Method

There was no deviation from the test method.

### Test Results

Flame impingement type and duration	Surface (30 s)					
Direction of production	No difference in terms of performance depending on the manufacturing direction					
Sample No	1	2	3	4	5	6
Occurance of ignition	No	No	No	No	No	No
Wheter flame reaches 150 mm mark	No	No	No	No	No	No
Ignition of the filter paper	No	No	No	No	No	No
Observations and additional notes	The samples showed no sign of dripping during the test.					

Flame impingement type and duration	Edge (PIR core material) (30 s)					
Direction of production	No difference in terms of performance depending on the manufacturing direction					
Sample No	1	2	3	4	5	6
Occurance of ignition	Yes	Yes	Yes	Yes	Yes	Yes
Wheter flame reaches 150 mm mark	No	No	No	No	No	No
Ignition of the filter paper	No	No	No	No	No	No
Observations and additional notes	The samples showed no sign of dripping during the test.					

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

*End of test report.*

