



# TEBAR®

Test Belgelendirme Araştırma ve Geliştirme Ticaret A.Ş.

Şerif Ali Çiftliği Hendem Cd. No:58  
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## REACTION TO FIRE CLASSIFICATION REPORT – EN 13501-1

Rapor No: **CPR-S/R16-2**

**Owner:** AKDE KİMYA END. SAN. VE TİC. LTD ŞTİ.  
Yeşilbayır Mah. Şimşir Sok. No:3 Hadımköy/İSTANBUL

**Product Definition:** Thermal insulation products made from sprayed rigid polyurethane (PU) foam

**Trade Mark:** SPR230

**Product Standard:** TS EN 14315-1

**Production Plant:** Yeşilbayır Mah. Şimşir Sok. No:3 Hadımköy/İSTANBUL

TEBAR A.Ş.; 20.10.2015 tarih ve 29508 sayılı Resmi Gazetede yayımlanan Tebar Test Belgelendirme Araştırma ve Geliştirme Tic. A.Ş.'nin Onaylanmış Kuruluş Olarak Görevlendirilmesine Dair Tebliğ (MHG/2015-19) ile Çevre ve Şehircilik Bakanlığı tarafından yetkilendirilmiştir.

### Onaylanmış Kuruluş Numarası 2164

|                                                     |  |                                                    |
|-----------------------------------------------------|--|----------------------------------------------------|
| <b>Prepared by</b><br>Hasan ATABAY/ Laboratory Tec. |  | <b>Reviewed by</b><br>Evren KARA / Tech. Lab. Man. |
| <i>IMZA</i>                                         |  | <i>IMZA</i>                                        |

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| İstek Numarası: | Rapor Numarası: | Sayfa No/Sayısı | Rapor Tarihi: |
|-----------------|-----------------|-----------------|---------------|
| UDİ1500037      | CPR-S/R16-2     | 1/4             | 03.02.2016    |

FR.084/03/01.07.2013



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## 1. Introduction:

This classification report defines the classification of thermal insulation products made from sprayed rigid polyurethane foam which is produced by "AKDE KİMYA END. SAN. VE TİC. LTD ŞTİ." assigned to "SPR230", in accordance with procedures given in EN 13501-1.

## 2. Details of classified product:

### 2.1. General information

The product thermal insulation products made from sprayed rigid polyurethane foam produced by "AKDE KİMYA END. SAN. VE TİC. LTD ŞTİ." is defined as "SPR230" which is used for thermal insulation in buildings.

### 2.2. Description of the product

Thermal insulation products made from sprayed rigid polyurethane foam produced by "AKDE KİMYA END. SAN. VE TİC. LTD ŞTİ." is defined as "SPR230", is described below depends on manufacturer's declarations.

**Thickness** : 30-50mm

**Product Density** : 30 kg/m<sup>3</sup>

**Coating** : Yok

**Blowing agent** : 365 mfc

**2.3.Product Standards:** EN 14315-1: Thermal insulating products for buildings - In-situ formed sprayed rigid polyurethane (PUR) and polyisocyanurate (PIR) foam products - Part 1: Specification for the rigid foam spray system before installation.

## 3.Sınıflandırmayı Destekleyen Deney Raporları ve Deney Sonuçları:

### 3.1.Deney Raporları:

| Name of laboratory | Name of sponsor                       | Test report ref. no. | Test method       |
|--------------------|---------------------------------------|----------------------|-------------------|
| TEBAR A.Ş.         | AKDE KİMYA END. SAN. VE TİC. LTD ŞTİ. | CPR-T/R16-68         | TS EN ISO 11925-2 |

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### 3.2. Test results:

| Test Method                                             | Parameter                    | Number of tests | Results                       |                       |
|---------------------------------------------------------|------------------------------|-----------------|-------------------------------|-----------------------|
|                                                         |                              |                 | Continuous parameter mean (m) | Compliance parameters |
| EN ISO 11925-2<br>Surface flame attack*<br>15s exposure | $F_s \leq 150$ mm            | 6x1             | 0,103                         | Compliant             |
| Flaming droplets/particles                              | Ignition of the filter paper |                 | N                             | Compliant             |

\*: as required to the end use application of the product.

### 4. Classification and field of application:

#### 4.1. Reference of classification:

This classification has been carried out in accordance with clause 10.3 and 10.10.2. of EN 13501-1 "Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests".

#### 4.2. Classification:

The product thermal insulation products made from sprayed rigid polyurethane foam produced by "AKDE KİMYA END. SAN. VE TİC. LTD ŞTİ." is defined as "SPR230" in relation to its reaction to fire behavior is classified as below.

| Fire Behavior |   | Smoke Production |   | Flaming Droplets |
|---------------|---|------------------|---|------------------|
| E             | - | -                | - | -                |

**Reaction to fire classification: E**

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#### 4.3. Field of application:

**4.3.1.** This classification is only valid for the products which are to be used for thermal insulation in buildings.

**4.3.2.** This classification is only valid for the products which complies with definition in clause 2.2 and produced in the manufacturing plant defined in this report.

#### 5. Warning and Limitations:

**5.1.** This classification report does not represent type of approval or certification of the product.

| Report                                                        | Name         | Signature*                                                                           | Date       |
|---------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------|------------|
| Prepared by                                                   | Hasan ATABAY |  | 22.02.2016 |
| Reviewed by                                                   | Evren KARA   |  | 22.03.2016 |
| *For and on behalf of "AKDE KİMYA END. SAN. VE TİC. LTD ŞTİ." |              |                                                                                      |            |

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Test Belgelendirme Araştırma ve Geliştirme Ticaret A.Ş.

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TÜRKAK  
T.C. EN ISO 17025  
KURUMUAB-0302-T  
CPR-2164CPR-T/  
R16-68

02-16

**TEBAR TEST BELGELENDİRME ARAŞTIRMA ve GELİŞTİRME TİC. A.Ş.**  
**Adres:** Şerifali Mah. Hendem Caddesi No:58 Y.Dudullu 34775 Ümraniye/İSTANBUL

TEBAR A.Ş.; 20.10.2015 tarih ve 29508 sayılı Resmi Gazetede yayımlanan Yapı Malzemeleri Yönetmeliği (305/2011/AB) Kapsamında TEBAR Test Belgelendirme Araştırma ve Geliştirme Ticaret A.Ş.'nin Onaylanmış Kuruluş Olarak Görevlendirilmesine Dair Tebliğ (Tebliğ No: MHG/2015-19) ile Çevre ve Şehircilik Bakanlığı tarafından yetkilendirilmiştir.

**Onaylanmış Kuruluş Numarası: 2164**

**DENEY RAPORU**  
**TEST REPORT**

**Customer Name/Adresse:** AKDE KİMYA END. SAN. VE TİC. LTD ŞTİ.  
Yeşilbayır Mah. Şimşir Sok. No:3 Hadımköy/İSTANBUL

**Order No:** UDİ1500037**Specimen No:** UDN1500337/UDN1500338/UDN1500339/ UDN1500340

**Name and identity of test item:** Thermal insulation products made from sprayed rigid polyurethane (PU) foam : "SPR230"

**The date of arrival of test item:** 16.11.2015**The date of acceptance of test item:** 16.11.2015**Remarks:** Test sample of polyurethane foam sent by the client to the laboratory**Date of Test:** 12.01.2016-15.01.2016 (dd/mm/yyyy)**Number of pages of the Report:** 1/4

Türk Akreditasyon Kurumu (TÜRKAK) deney raporlarının tanınması konusunda Avrupa Akreditasyon Birliği (EA) ve Uluslararası Laboratuvar Akreditasyon Birliği (ILAC) ile karşılıklı tanınma antlaşması imzalamıştır.

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**Deney ve/veya ölçüm sonuçları genişletilmiş ölçüm belirsizlikleri (olması halinde) ve deney metodları bu sertifikanın 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<br>Seal | Tarih<br>Date | Deneyi Yapan<br>Person in charge of test<br>Kimya Teknikeri/ Chemistry Tec. | Teknik Laboratuvar Yöneticisi<br>Head of Testing Laboratory |
|               | 03.02.2016    | H.ATABAY                                                                    | E.KARA                                                      |

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AB-0302-T  
CPR-2164

CPR-T/  
R16-68

02-16

**TEBAR TEST BELGELENDİRME ARAŞTIRMA ve GELİŞTİRME TİC. A.Ş.**  
**Adres:** Şerifali Mah. Hendem Caddesi No:58 Y.Dudullu 34775 Ümraniye/İSTANBUL

## DENEY RAPORU TEST REPORT

**Sayfa : 2/4**

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Polyurethane foam , density: 30 kg/m<sup>3</sup>, for test samples which sent by the client to the laboratory in 16 November 2015, tested according to EN ISO 11925-2 and test results with related information given below.

**a-) Test Method:** EN ISO 11925-2: Reaction to fire tests-Ignitability of building products subjected to direct impingement of flame-Part 2: Single-flame source test

**b-)Product Description:** Thermal insulation products made from sprayed rigid polyurethane (PU) foam.

🔴 **Sponsor/Client:** AKDE KİMYA END. SAN. VE TİC. LTD ŞTİ.

🔴 **Production Plant:** Yeşilbayır Mah. Şimşir Sok. No:3 Hadımköy/İSTANBUL

🔴 **Brand Name:** SPR230

🔴 **Lot Number /Production Code/Serial Number:** -

🔴 **Production Date:** 21.10.2015/06.11.2015/15.10.2015/26.10.2015

**c-) Sampling:** Test sample which are described in clause (b) were taken by the client and sent to the laboratory.

**d-)Information's for specimen preparation:**

🔴 Test specimens stored for 48h at (23±2)°C and relative humidity (50±5)% and conditioned to constant mass with EN 13238.

🔴 Fire behaviour of the product determined according to EN 13501-1 (Euro classes) by applying Class E criterion.

**e-)General information relating to the test:**

🔴 The product tested according to EN ISO 11925-2 with 15s exposure time to meet of Class E criterions (EN 13501-1).

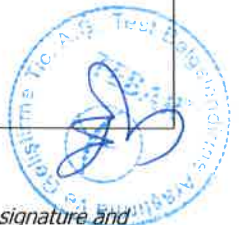
🔴 **Class E Criterion:** Under conditions of surface flame attack with 15 s exposure time, there shall be no flame spread in excess of 150 mm vertically from the point of application of the test flame within 20 s from the time of application.

\* işareti ile gösterilen deney metotları Akreditasyon kapsamı dışındadır.

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**DENEY RAPORU**  
**TEST REPORT**

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- 🔴 **Specimen holder:** The specimen holder consists of a double stainless U-shaped frame, 15mm wide, (5±1)mm thick and (250x90)mm dimensions. Test specimens clamped in the specimen holder so that one end and both sides are covered by the holder frames.
- 🔴 Flame application time: 15s
- 🔴 Test time: Flame applications time is 15s, the total test duration is 20s from the time at which the flame is first applied.
- 🔴 **Deviation of standard condition: -**
- 🔴 **Date of test:** 12-15.01.2016
- 🔴 **Likely other factors of test results: -**
- f-) Test Results:**
  - 1-) Occurrence of ignition
  - 2-) Whether flame reaches 150mm
  - 3-) Time to reach 150mm
  - 4-) Ignition of the filter paper
- 🔴 **Intended application of the building product: -**



\* İşareti ile gösterilen deney metotları Akreditasyon kapsamı dışındadır.

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**DENEY RAPORU**  
**TEST REPORT**

**Sayfa : 4/4**  
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**TABLE 1: TEST RESULTS**

| Sample Number | Occurrence of Ignition<br>(Y/N) | Whether flame reaches 150 mm<br>(Y/N) | Time to reach $t_{150}$<br>(s) | Ignition of the filter paper<br>(Y/N) | Decision<br>(P/F) |
|---------------|---------------------------------|---------------------------------------|--------------------------------|---------------------------------------|-------------------|
| UDN1500337-1  | Y                               | N                                     | -                              | N                                     | P                 |
| UDN1500337-2  | Y                               | N                                     | -                              | N                                     | P                 |
| UDN1500338-3  | Y                               | N                                     | -                              | N                                     | P                 |
| UDN1500339-4  | Y                               | N                                     | -                              | N                                     | P                 |
| UDN1500339-5  | Y                               | N                                     | -                              | N                                     | P                 |
| UDN1500340-6  | Y                               | N                                     | -                              | N                                     | P                 |

**Abbreviations:**

**Y:** Yes      **N:** No      **P:** Passed      **F:** Failed       **$t_{150}$ :** Time to reach 150 mm

**"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 sole criterion for assessing the potential fire hazard of the product in use"**



**Picture 1:** After test and in test photographs



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