



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



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| AB-0001-T |
| 634561 |
| 09-21 |

MUAYENE VE DENEY RAPORU
TEST REPORT

| | |
|--|--|
| Deneysel Talep Eden/Firma (Adı, Adresi, Şehir vb.) <i>Requesting/Customer</i> (Name, Address, City etc.) | : ALBOND ALÜMİNYUM SANAYİ VE TİCARET ANONİM ŞİRKETİ (ALBOND ALÜMİNYUM SANAYİ VE TİCARET ANONİM ŞİRKETİ: HATİP MAH. ALİ OSMAN ÇELEBİ BULVARI NO:140 59860 ÇORLU --TEKİRDAĞ) |
| Deneysel Talep Tarihi/No <i>Order Date / No</i> | : 01.04.2021 / 640422 |
| Numunenin Tanımı (No, Cins, Marka, Tip, Tür, Model vb.) <i>Sample Description</i> (No, Type, Model etc.) | : 817238, POLİETİLEN DOLGULU HER İKİ YÜZÜ ALÜMİNYUM LEVHA KAPLI KOMPOZİT PANEL, ALBOND, 9000 SERİSİ TİP 1, -, -, 0,00 adet 817238, COMPOSITE PANEL WITH POLYETHYLENE CORE AND ALUMINIUM SHEET FACINGS ON BOTH SIDES, ALBOND, 9000 SERIES TYPE 1, -, -, 0,00 item |
| Numune Kabul Tarihi <i>Test Item Receipt Date</i> | : 01.04.2021 |
| Deneylerin Yapıldığı Tarih <i>Date of Test</i> | : 20.04.2021 - 20.04.2021 |
| Uygulanan Standard / Metod <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> |
| Raporun Sayfa Sayısı <i>Number of pages of the report</i> | : 4 |
| Açıklamalar <i>Remarks</i> | : Bu rapor 605381 nolu 04-21 tarihli TSE raporunun İngilizce çevirisidir. <i>This report was translated to English from the original with the TSE report number 605381 and date 04-21</i> |

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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.

Numune müşteri tarafından alınmıştır, bu rapordaki sonuçlar numunenin teslim alındığı hali için geçerlidir. Bu rapor özel deneysel talebine istinaden düzenlenmiş olup, Standartlara Uygunluk Belgesi niteliğinde değildir. Partiyi temsil etmez, Piyasa Gözetim ve Denetim Faaliyetlerine esas oluşturamaz, ilan, reklam ve ihalelerde 6102 sayılı Türk Ticaret Kanunu'nun 54. ve 55. Maddelerinde yer alan haksız rekabet hükümlerine aykırılık teşkil edecek şekilde kullanılamaz. Söz konusu hususlara aykırı hareket edilmesi halinde hukuki ve cezai açıdan TSE sorumlu tutulamaz.

Mühür
Seal

Tarih
Date

Deneysel Sorumlusu
Person in charge of tests

Arda ATAKOL
Deneysel Personeli
Testing Expert

20.09.2021

Kontrol Eden
Reviewer

Halil Aliper YILDIRIM
Teknik Şef
Technical Chief

Onaylayan
Approved by

Sencer GUVEN
Laboratuvar Müdürü
Laboratory Manager

Bu rapor, hazırlayan laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. Bu rapor, sadece deneysel yapılan numune için geçerlidir ve "Ürün Belgesi" yerine geçmez.
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REACTION TO FIRE CLASSIFICATION

1 Introduction

This classification report defines the classification assigned to the “ALBOND 9000 Series” aluminium composite panel with polyethylene core in accordance with the procedures given in the standard TS EN 13501-1: 2019.



REACTION TO FIRE CLASSIFICATION ACCORDING TO TS EN 13501-1

| | |
|----------------------|---|
| Sponsor | ALBOND ALÜMİNYUM SANAYİ VE TİCARET A.Ş. AYAZAĞA MH. MİMAR SİNAN SK. SEBA CENTER İŞ MERKEZİ NO: 21 D BLOK KAT: 2 KAPI NO: 15 SARIYER |
| Prepared by | TSE Construction Materials Fire and Acoustics Laboratory |
| Product name | ALBOND 9000 Series |
| Date of issue | 20.09.2021 |

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2 Details of Classified Product

2.1 General

The classified product is defined as an aluminium composite panel with polyethylene core and aluminium sheet facings on both sides.

2.2 Product description

| | |
|---|--|
| Product Standard | TS 13777:2017-05 |
| Investigation no | 2324939 |
| Type of investigation | TSE certification -- 2 nd interm investigation |
| Product thickness and mass per unit area | 4,0 mm / 5,5 kg/m ² |
| Coating thickness and mass per unit area | Front face: Black, 30 µm / 0,036 kg/m ² Back face: Gray, 5 µm 0,006 kg/m ² |
| Metal sheet thickness and mass per unit area | Front and back: 0,50 mm / 1,36 kg/m ² |
| Adhesive thickness and mass per unit area | Front and back: 80 µm / 0,074 kg/m ² |
| Core thickness and mass per unit area | ~3,0 mm / 2,66 kg/m ² |





REACTION TO FIRE CLASSIFICATION

Test parameters

| | |
|---------------------|---|
| Substrate | None |
| Air gap | 80 mm |
| Fixing and mounting | Standard mounting (TS EN 13823:2020-11) on steel support frames with steel screws |
| Joints | Vertical and horizontal |

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 |
|--|--|---------------------|-------------------------|
| TSE Constr. Mat. Fire and Acoustics Laboratory | ALBOND ALÜMİNYUM SANAYİ VE TİCARET A.Ş.. | 605379 / 04-21 | TS EN ISO 11925-2: 2020 |
| TSE Constr. Mat. Fire and Acoustics Laboratory | ALBOND ALÜMİNYUM SANAYİ VE TİCARET A.Ş. | 605380 / 04-21 | TS EN 13823: 2020 |

3.2 Results

Results of the above mentioned tests and the classification criteria corresponding to class D-s2, d0 as stated in TS EN 13501-1:2019 are given in the following table.

| Test Method | Parameter | No. of Tests | Test Results | |
|-----------------------------------|---|--------------|------------------------------|-------------------------------------|
| | | | Mean of Continous Parameters | Non-continous Parameters |
| TS EN ISO 11925-2 (30 s exposure) | $F_s \leq (150 \text{ mm})$ in 60 s | 6+6* | (-) | $F_s \leq (150 \text{ mm})$ in 60 s |
| | No ignition of filter paper | | (-) | No ignition of filter paper |
| TS EN 13823+A1 | $FIGRA_{0,4 \text{ MJ}} \leq 750 \text{ W/s}$ | 3 | 296,46 | (-) |
| | $SMOGR \leq 180 \text{ m}^2/\text{s}^2$ | | 10,30 | (-) |
| | $TSP_{600s} \leq 200 \text{ m}^2$ | | 97,10 | (-) |
| | No flaming droplets in 600 s | | (-) | No flaming droplets |

*6 tests with surface exposure, 6 with edge exposure.

(-) Not applicable

4 Classification and Direct Field of Application

4.1 Reference of classification

This classification has been carried out in accordance with clauses 11.4, 11.9.3 and 11.10.1of TS EN 13501-1:2019.





REACTION TO FIRE CLASSIFICATION

4.2 Classification

In relation to its reaction to fire behaviour, the product “ALBOND 9000 Series” has been classified as:
D

In relation to its smoke production behaviour, the product “ALBOND 9000 Series” has been classified as:
s2

In relation to its flaming droplets behaviour the product “ALBOND 9000 Series” has been classified as:
d0

| Fire behaviour | Smoke production | Flaming droplets |
|----------------|------------------|------------------|
| D | s2 | d0 |

Reaction to Fire Classification: D-s2, d0

4.3 Field of application

This classification is valid for the products with the same name, manufactured in the same type and with the same formulation under the following end use conditions:

End use

| | |
|----------------------------|---|
| Fixing and mounting | Applications where the product is fixed on metal supporting elements with non combustible metal fixing elements |
| Air gap behind the product | Applications involving an air gap of 80 mm or thicker behind the substrate |
| Joints | Applications with or without vertical and/or horizontal joints, where no filling material is used in the joints |

5 Limitations

At the time of publishing of the standard TS EN 13501-1:2019, there was no 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.

