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TSE DENEY ve KALİBRASYON MERKEZİ BAŞKANLIĞI

Elektroteknik ve Makine Laboratuvar Grup Başkanlığı (Gebze)

EX Laboratuvarı Müdürlüğü (İzmir)

Adres: Tariş Pamuk Depoları Arkası Çiğli/ İZMİR
Tel: +90 (232) 376 24 25/D 210 Fax: +90 (232) 386 15 10 Eposta: ex@tse.org.tr Web: www.tse.org.tr

HEADSHIP OF TSE TEST and CALIBRATION CENTER
EX LABORATORY (İZMİR)

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

AB-0001-T
145762
04-12

MUAYENE VE DENEY RAPORU
TEST REPORT

Deneyi Talep Eden (Adı,Adresi,Şehir vb.) *Customer (Name,Adress,City etc.)*	:	ASTEKNİK MÜH. YAPI VE YALITIM MALZ.ALÜMİNYUM VE PLASTİK SAN.VE TİC.LTD. 1.ESENŞEHİR MAH.ŞAİR FUZULİ SOK. NO: 10 Y.DUDULLU Ümraniye-İSTANBUL)
Deney Talep Tarihi/No *Order Date / No*	:	16.03.2012 / 67712
Numunenin Tanımı (Cins, Marka, Tip, Tür, Model vb.) *Sample Description (Type,Mark,Model etc.)*	:	ALÜMİNYUM TAŞAIYICILI DUVAR KORUMA BANDI, , DK 25152 , - , - , 5.00 takım *PVC BARRIER FOR WALL PROTECTRON, DK 25152, , 5.00 group*
Numunenin Alındığı Tarih *Sample Receipt Date*	:	15.03.2012 Numune,müşteri tarafından alınmıştır
Deneylerin Yapıldığı Tarih *Date of Test*	:	16.03.2012 - 12.04.2012
Uygulanan Standard / Metod *Applied Standard/Method*	:	TS EN 13823:2010 :2011-01 Yapı Ürünleri İçin Yangına Tepki Deneyleri-Tek Bir Yakma Unsuru İle Isıl Etkiye Maruz Kalan-Döşemeler Haricindeki Yapı Ürünleri *TS EN 13823:2010 :2011-01 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item*
Raporun Sayfa Sayısı *Number of pages of the report*	:	7
Açıklamalar *Remarks*	:	

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.
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This test report was prepared upon customer's request, can not be used as certificate of conformity to standards, does not represent a batch and can not be used as conformity document for advertisements and procurements .

Mühür *Seal*	**Tarih** *Date*	**Deney Sorumlusu** *Person in charge of tests*	**Kontrol Eden** *Reviewer*	**Onaylayan** *Approved by*
	12.4.2012	Önder Volkan BALCI Tekniker	Önder Volkan BALCI Tekniker	Tacettin AKGÜN Laboratuvar Müdürü

REACTION TO FIRE TESTS FOR BUILDING PRODUCTS – BUILDING PRODUCTS EXCLUDING FLOORINGS EXPOSED TO THE THERMAL ATTACK BY A SINGLE BURNING ITEM

Calibration and Testing Center of TSE Head of Electrotechnical and Mechanical Laboratories Group Directorate of Ex Laboratory	Address/ Addresses : 8780\1 Sok. No:5 Tariş Pamuk Depoları Arkası Çiğli / İZMİR

Decisions to be Taken in Consequence of Inspections and Tests :

If Related Rule/Test not necessary to be applied to the Specimen (Unapplied to Specimen) : **US**
If the Tested Specimen Conforms to the Rules (Passed) : **P**
If the Tested Specimen does not conform to the Rules (Failed) : **F**
If there is a Rule/Test that could not be Applied due to Any Reason (Undone) : **U**

General Evaluations :

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- Each page of the report is initialled by the person(s) who conducted the test, and bears the blue seal of the unit. Unsigned and unsealed reports are invalid.

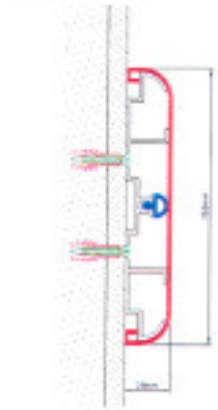
COMPANY DECLARATIONS : **ASTEKNİK MÜHENDİSLİK YAPI VE YALITIM MALZEMELERİ ALÜMİNYUM VE PLASTİK SAN.TİC.LTD.ŞTİ.**

"ASDEKOR" TRADEMARK

DK 25152 product coded

152 mm wide, 2 mm thickness PVC covered and 25 mm total thickness "PVC BARRIER FOR WALL PROTECTION"

Construction in the bottom continuous aluminum profile



1. DEFINITION OF THE TEST METHOD

Tests were carried out, without any deviations from the standard, in accordance with TS EN 13823 : March 2010 - Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item standard.

Standard is defined for classification building products reaction to fire, different peformance classes; excluding floorings and separately for floorings.

2. DEFINITION OF SPECIMEN

Arrival date of the specimen: 16.03.2012

Definition of the specimen : **PVC BARRIER FOR WALL PROTECTION**

Name of the company that produced the specimen: **ASTEKNİK MÜHENDİSLİK YAPI VE YALITIM MALZEMELERİ ALÜMİNYUM VE PLASTİK SAN.TİC.LTD.ŞTİ.**

Production date of the specimen: -

Name of the company that requested testing: **ASTEKNİK MÜHENDİSLİK YAPI VE YALITIM MALZEMELERİ ALÜMİNYUM VE PLASTİK SAN.TİC.LTD.ŞTİ.**

Trademark of the specimen: **"ASDEKOR"**

Company Declarations :

Specimen:	**Nominal Values (*)**	**Measured Values (**)**
Thickness (mm) PVC	*2 mm*	*2 mm*
Unit area mass (g/m²)		
Density (kg/m³)		

(*) Values declared by the company

(**) Values verified by the laboratory

Assembling and fixing the specimen :

TS EN 13823/March 2010 Clause **5.2.1 Assembly as well as end-use application**

(Material testing is done, when it is mounted as the last of their application to use the test results are valid only for that application.)

Conditioning:

Beginning of conditioning : 16.03.2012
End of conditioning : 10.04.2012 (TS EN 13238 Article 4.3. c.)

3. CALIBRATION RESULTS

Latest calibration date :

04.05.2012 STEP CALIBRATION
01.02.2012 HEPTANE CALIBRATION
01.02.2012 NOİSE AND DRİFT CALIBRATION
02.02.2012 VELOCİTY PROFİLE MEASURING

Calibration validity date : 05.05.2012

4. RESULTS AND OBSERVATIONS

Date of test : 10.04.2012

Ambient pressure : 105000 Pa

Ambient relative humidity :50 %

Ambient temperature : 23 °C

a) Measured Values

Numbers of test specimen:	M1	M2	M3
FIGRA value (W/s)	28,86	20,90	18,16
THR600s (MJ)	2,0	1,4	1,0
SMOGRA value (m^2/s^2)	11,51	6,56	8,35
TSP600s (m^2)	69,6	41,8	47,2

b) Observations

Numbers of test specimen:	M1	M2	M3
Spread of lateral flame in long arm	Did not occur	Did not occur	Did not occur
Fiery bits or driblets f<10s f>10s	Did not occur	Did not occur	Did not occur
State of inflaming of the surface	Occur	Occur	Occur
Flow of smoke emitted by the specimen, coming out of the carriage car into the test room	Did not occur	Did not occur	Did not occur
Bits falling down from the specimen	Occur	Occur	Occur
Formation of gap in the corner (due to failure in fixing support panels)	Did not occur	Did not occur	Did not occur
Early ending of the test	Did not occur	Did not occur	Did not occur
Corruption of the specimen or formation of breakdown	Did not occur	Did not occur	Did not occur

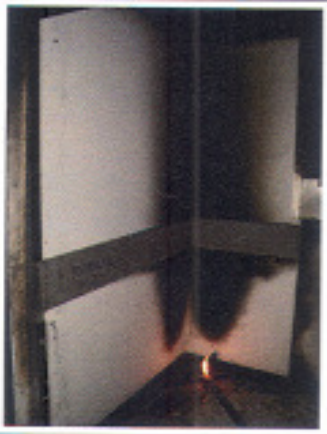
C) Summary of test results:

Consequent to this test, it is not foreseen that there should be a single criterion in evaluating potential fire risk of a product in use related with the behaviour of test specimen of a product under special conditions that the test is conducted.

These test results are valid for the tested specimen.

Visual observations	
Average FIGRA value (W/s)	22,64
Average THR600s (MJ)	1,46
Average SMOGRA value (m^2/s^2)	8,80
Average TSP600s (m^2)	52,86
LFS<up to the edge (mm)	Did not occur
Burning driblets/bits ≤ 10 s	Did not occur
Burning driblets/bits > 10 s	Did not occur

Pictures of the test specimen -



* Assembling Properties:

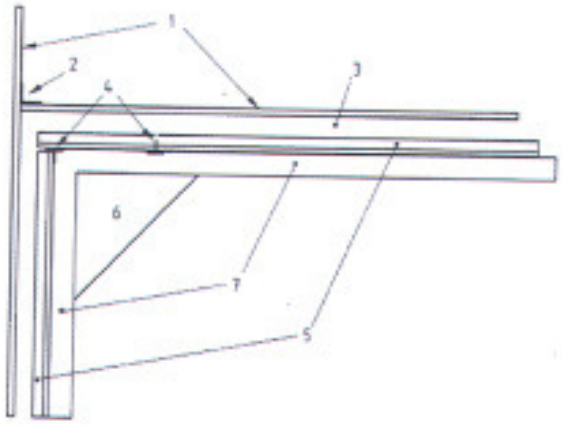
TS EN 13823/March 2010 Article 5.2.1 "Assembly as well as end-use application" Material testing is done, when it is mounted as the last of their application to use the test results are valid only for that application

TS EN 13823/March 2010 Clause 5.3. Placement of the sample arms to the trolley;

500 mm armlet : 500 mm length of test specimen, U-profile (ground) as a horizontal distance of 500 mm, 12 mm thick with a screw on the plate was mounted calcium silicate.

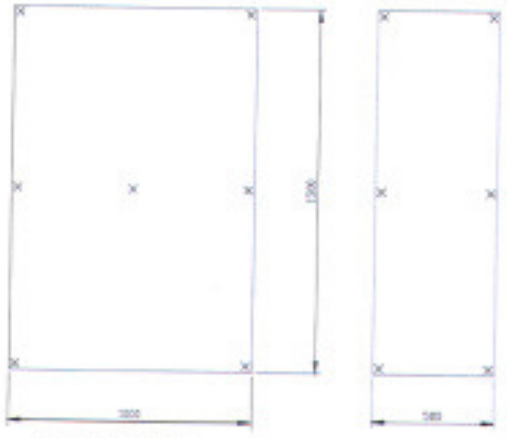
1000 mm armlet: 1000 mm length of test specimen, U-profile (ground) as a horizontal distance of 500 mm, 12 mm thick with a screw on the plate was mounted calcium silicate.

Air gap was not left between the support plates and the short and long wing panels.



Açıklama:
1 Destek levhası
2 L-Profil
3 Hava aralığı
4 Eklentiler
5 Numune kolları
6 Blok
7 U-profil

Drawing not to scale.



LONG WING SHORT WING

RESULT

This test result relates to the behavior of the test sample is applied under special conditions. This test result is not the only relevant criterion for the product's evaluation of a potential fire hazard.

ASTEKNİK MÜHENDİSLİK YAPI VE YALITIM MALZEMELERİ ALÜMİNYUM VE PLASTİK SAN.TİC.LTD.ŞTİ. company that has produced **ASDEKOR** Trademark **PVC BARRIER FOR WALL PROTECTION (DK 25152 Product coded)** samples tested according to TS EN 13823:March 2010 Turkish Standard.

This test report and test results given at TS EN ISO 11925-2 topical 04.2012 dated / 145763 numbered test report **COMPLY** *with* ***TS EN 13501-1/January 2010*** *Table-1* **B S1 d0* class** criteria.

* Assembling Properties

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TSE DENEY ve KALİBRASYON MERKEZİ BAŞKANLIĞI

Elektroteknik ve Makine Laboratuvar Grup Başkanlığı (Gebze)

EX Laboratuvarı Müdürlüğü (İzmir)

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Test
TS EN ISO/IEC 17025
AB-0021-T

AB-0001-T
145763
04-12

MUAYENE VE DENEY RAPORU
TEST REPORT

Deneyi Talep Eden (Adı,Adresi,Şehir vb.) *Customer (Name,Adress,City etc.)*	:	ASTEKNİK MÜH. YAPI VE YALITIM MALZ.ALÜMİNYUM VE PLASTİK SAN.VE TİC.LTD. 1.ESENŞEHİR MAH.ŞAİR FUZULİ SOK. NO: 10 Y.DUDULLU Ümraniye-İSTANBUL)
Deney Talep Tarihi/No *Order Date / No*	:	16.03.2012 / 67712
Numunenin Tanımı (Cins, Marka, Tip, Tür, Model vb.) *Sample Description (Type,Mark,Model etc.)*	:	ALÜMİNYUM TAŞAIYICILI DUVAR KORUMA BANDI, , DK 25152 , - , - , 5.00 takım *PVC BARRIER FOR WALL PROTECTION, DK 25152, , 5.00 group*
Numunenin Alındığı Tarih *Sample Receipt Date*	:	15.03.2012 Numune,müşteri tarafından alınmıştır
Deneylerin Yapıldığı Tarih *Date of Test*	:	16.03.2012 - 12.04.2012
Uygulanan Standard / Metod *Applied Standard/Method*	:	TS EN ISO 11925-2:2010 :2011-04 Yangın dayanımı deneyleri – Aleve doğrudan maruz kaldığında tutuşabilirlik – Bölüm 2: Tek alev kaynağıyla deney +TS EN ISO 11925-2:2010/AC:2011 :2011-04 *TS EN ISO 11925-2:2010 :2011-04 Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test +TS EN ISO 11925-2:2010/AC:2011 :2011-04*
Raporun Sayfa Sayısı *Number of pages of the report*	:	4
Açıklamalar *Remarks*	:	

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	12.4.2012	Önder Volkan BALCI Tekniker	Önder Volkan BALCI Tekniker	Tacettin AKGÜN Laboratuvar Müdürü

TS EN ISO 11925-2 : 2010 / April 2011

Building Materials – Fire Resistance Tests – Combustibility When Exposed to Direct Flame– Part 2: Single-Flame Source Test

Calibration and Testing Center of TSE Head of Electrotechnical and Mechanical Laboratories Group Directorate of Ex Laboratory	Address/ Addresses : 8780\1 Sok. No:5 Tariş Pamuk Depoları Arkası Çiğli / İZMİR

Decisions to be Taken in Consequence of Inspections and Tests :

If Related Rule/Test not necessary to be applied to the Specimen (Unapplied to Specimen)	: US
If the Tested Specimen Conforms to the Rules (Passed)	: P
If the Tested Specimen does not conform to the Rules (Failed)	: F
If there is a Rule/Test that could not be Applied due to Any Reason (Undone)	: U

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COMPANY STATEMENTS: **ASTEKNİK MÜHENDİSLİK YAPI VE YALITIM MALZEMELERİ ALÜMİNYUM VE PLASTİK SAN.TİC.LTD.ŞTİ.**

Characteristics of the test sample;

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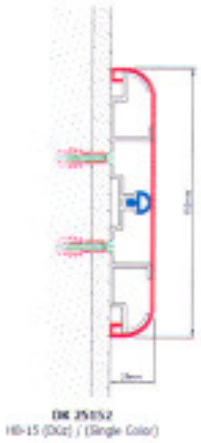
152 mm wide, 2 mm thickness PVC covered and 25 mm total thickness "PVC BARRIER FOR WALL PROTECTION"

Construction in the bottom continuous aluminum profile



Rule / Test	Result / Remark	Decision
Behavior across fire Behavior of products across fire (European classes) is determined according to EN 13501-1.	EN 13501-1 Bfl Class Criteria Applied.	P
Clause 8.1 (TS EN 13501-1) **Class** Bfl To determine compliance with the class E, a product, the exposure time of 15 seconds by using the TS EN ISO 11925-2 is subjected to the tests		
Clause 10.3 (TS EN 13501-1) **Class** Bfl Product must ensure the following criteria Flame for a period of 15 s from the surface and, when necessary, in cases of exposure to flame edge (see Article 6.3), after exposure to flame within 20 s spread of flame not show more than 150 mm from application.	Class Bfl **Were exposed to flame for a period of 15 s from the surface.**	P
Clause 4.5 (TS EN ISO 11925-2) **Sample Carrier** Sample carriers U-shaped, 15 mm in width, (5 ± 1) mm thick a pair of stainless steel. According to the vertical position to support the frame hangers and the central portion of the sample from the bottom and the edges are placed so as to be exposed to flame. Two arms of the sample carrier, to prevent the play from the sample, each tipped with a screw or clamp.		
Clause 5.2 (TS EN ISO 11925-2) **Dimensions** The test samples must be 250 (+0 -1) length and 90(+0 -1) wide.	Length 250 mm Width 90 mm Thickness 2 mm	P
Clause 6 (TS EN ISO 11925-2) Conditioning The test samples and filter paper must conditioned as specified in EN 13238: 2010	Duration of conditioning: 14 Days Conditioning Temperature: 23 ± 2 °C Humidity Conditioning : 50 ± 5 % (EN 13238 :2010 Madde 4.3 c)	P
Clause 7.1 (TS EN ISO 11925-2) **General** Tests can applicable 15 s or 30 s on condition that determined by who wants to tests.	15 s. selected. (class Bfl)	P
Clause 7.4 (TS EN ISO 11925-2) **Duration of Test** Flame application time 15 s is selected as the test time is 20 s, Flame application time 20 s is selected as the test time is 60 s.	Duration of Test 20 s (class Bfl)	P
Clause 8.2 (TS EN ISO 11925-2) Each test sample is saved for the following. a) Combustion whether, b) To reach the height of flame reached 150 mm from the point where the flame is applied and the time to reach the height of flame , c) Whether or not burning the filter paper, d) Observations of the physical characteristics of test samples	a) Combustion was at the samples. b) Flame did not reach the measuring line 150 mm within test period. c) Drip wasn't from the samples filter paper did not burn. d) Melting was at the test sample.	P

TABLE 1 (TEST RESULTS)

Number of samples	Combustion (Yes/No)	Flame spread to 150 mm (Yes/No)	150mm Flame Spread Time(T150) *Test Per. Fs≤150 mm -Passed* *Test Per. Fs≥150 mm - Failed*	Combustion filter paper (Yes/No)	Conclision
1	Yes	No	-	No	P
2	Yes	No	-	No	P
3	Yes	No	-	No	P
4	Yes	No	-	No	P
5	Yes	No	-	No	P
6	Yes	No	-	No	P

RESULT

This test result relates to the behavior of the test sample is applied under special conditions. This test result is not the only relevant criterion for the product's evaluation of a potential fire hazard.

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