



Report No/ Rapor No : 2024090303
Applicant/Deney Sahibi : **ASTRAL PETROL ÜRÜNLERİ SAN. VE TİC. LTD. ŞTİ.**
Applicant Address/ Adres: Gültepe Mah. Demokrasi Bulv. Bestan Tekstil AŞ. No:59
Merkez/ Batman
Contact Person / Yetkili : Davut YAVUZ
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Sample Accepted on / Numune Tarihi: 21.06.2024
Report Date / Rapor Tarihi : 03.09.2024
Total number of pages/Rapor Sayfa: 4 (Pg)
Sample ID : **THERMAL SHIELD**

	TEST/ INSPECTION	Directive	METHOD	RESULT	
*	Standard Test Methods for Detector Calibration and Analysis of Radionuclides	The General Product Safety Directive (GPSD) (2001/95/EC)	ASTM E181	Gamma	PASS
				²²² Rn	PASS

NOTE: This test/inspection result replaces the conformity assessment, can be presented to official institutions, and used in products and brochures.



Seal

Customer Representative

Merve Nur KIRVELİ

Laboratory Manager

Merve ÖZLÜ

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ASTM E181: Standard Test Methods for Detector Calibration and Analysis of Radionuclides

Scope

These test methods cover general procedures for the calibration of radiation detectors and the analysis of radionuclides. For each individual radionuclide, one or more of these methods may apply.

These test methods are concerned only with specific radionuclide measurements. The chemical and physical properties of the radionuclides are not within the scope of this standard.

The measurement standards appear in the following order:

Spectroscopy Methods

- Calibration and Usage of Germanium Detectors 3 - 12
- Calibration and Usage of Scintillation Detector Systems: 13 - 20
- Calibration and Usage of Scintillation Detectors for Simple Spectra 16
- Calibration and Usage of Scintillation Detectors for Complex Spectra 17
- Counting Methods: Beta Particle Counting 25-26
- Aluminum Absorption Curve 27 - 31
- Alpha Particle Counting 32 - 39
- Liquid Scintillation Counting 40 – 48

Additional information on the set-up, calibration and quality control for radiometric detectors and measurements is given in Guide C1402 and Practice D7282.

The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Specimen : THERMAL SHIELD

Manufacturer : EUROTRADE-TR SH.P.K

Test Method : Gamma Spectrometric Method (ASTM E 181:2003)

Conditions : %51 RH, 21 °C

Reportings :

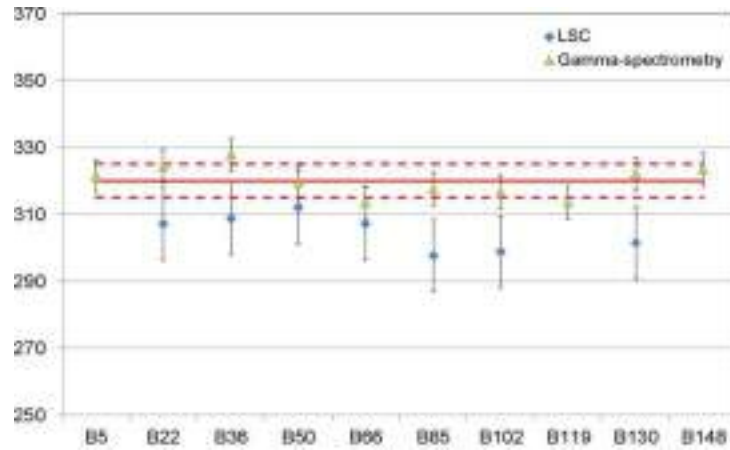
- One measurement result/mean value per method (222Rn massic activity in Bq/kg),
- Associated expanded uncertainty with coverage factor of $k = 1$,
- The applied analytical method.

PR33-F01/08.10.2015/Rev:17.01.2017-R01



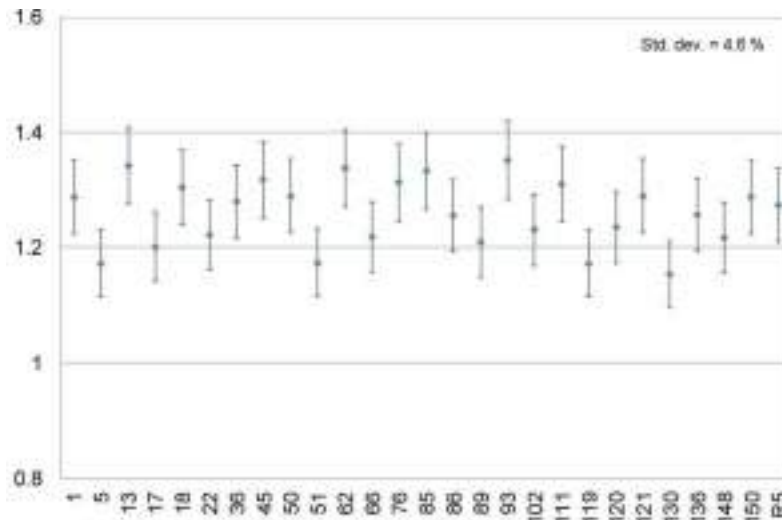
Adress: Mahmutbey Mah. Dilmenler Cad, No:2 Bağcılar İstanbul Türkiye
Contact: www.laboratuvar.com e-mail: info@laboratuvar.com

Test Starting..



Component	Sample (%)
Counting statistics (incl. background)	1.2
Weighing	0.05
Geometry repeatability	0.9
Dead time	0.1
Detection Efficiency	2.2
Gamma-ray emission prob.	0.2
Half-life	0.2
Combined uncertainty (%)	2.5

On-site screening results obtained by EUROLAB for EUROTRADE-TR SH.P.K 's sample.



Test Number	Name of the test	Measurement Results (Urtit)	Minimum Measurable Value <i>Mt^X^Level</i>
1	Ra-226, Th-232.Cs- 137 and K-40 Analysis in Soil and Building Materials by Gamma Spectrometric Method	Ra-226 : 5 ± 2 Bq/kg	
		Th-232 : 2.4 ± 0.5 Bq/kg	
		K-40 : 37 ± 6 Bq/kg	
		CS-134 < MMV	0.3 Bq kg
		CS-137 < MMV	0.3 Bq/kg
		1 : 0.04 ± 0.01	
2	²²² Rn massic activity (Bq/kg)	<i>uref, k = 1</i>	<i>uref (%) 1.9</i>

TEST RESULTS

Test values are valid for products delivered to EUROLAB Laboratory on 07.04.2023.

The Standard deviation for proficiency assessment (OPT) was initially set to 15%

Note:

Since the European Commission is below the limit values in the Radiation Protection report No. 112 dated 1999, there is no radiological hazard in using the sample as a building material.

***** End of Report*****



Report No/ Rapor No : 2024090304
Applicant/Deney Sahibi : ASTRAL PETROL ÜRÜNLERİ SAN. VE TİC. LTD. ŞTİ.
Applicant Address/ Adres : Gültepe Mah. Demokrasi Bulv. Bestan Tekstil AŞ. No:59
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Total number of pages/Rapor Sayfa: 3 (Syf)
Sample ID : THERMAL SHIELD

	TEST/ MUAYENE	Direktif	METOT	SONUÇ
*	Akustik - Empedans tüplerinde ses emme katsayısının ve empedansın tayini - Bölüm 2: Transfer fonksiyonu yöntemi	Genel Ürün Güvenliği Direktifi (GPSD) (2001/95/EC)	ISO 10534-2	22 dB

NOT: Bu test/muayene sonucu uygunluk değerlendirmesi yerine geçer, resmi kurumlara sunulabilir, ürün ve broşürlerde kullanılabilir.



Mühür

Müşteri Temsilcisi

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PR33-F01/08.10.2015/Rev:17.01.2017-R01

ISO 10534-2 : Akustik - Empedans tüplerinde ses emme katsayısının ve empedansın tayini - Bölüm 2: Transfer fonksiyonu yöntemi

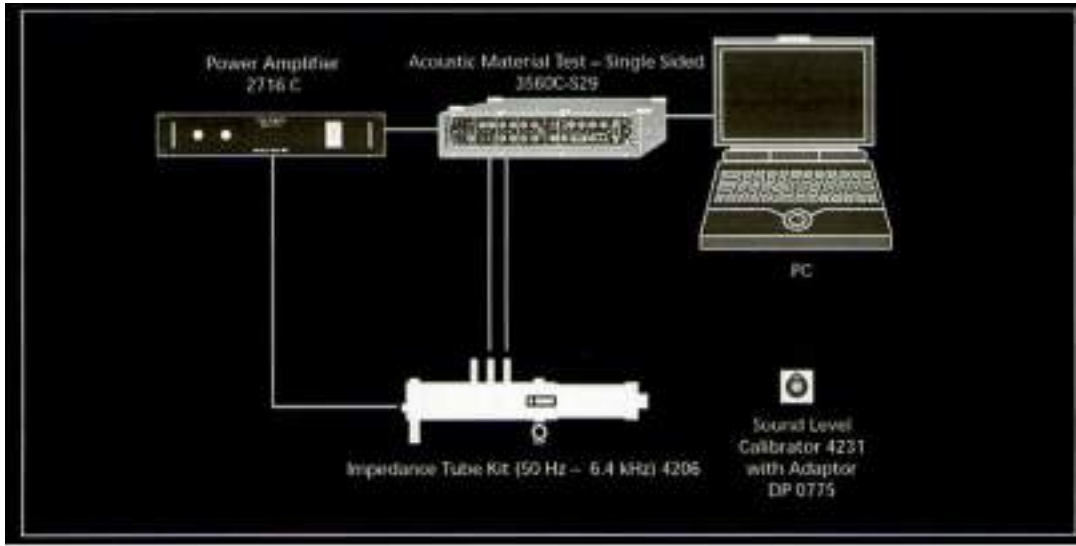
Prosedür

Ölçüm işlemleri 50 - 6400 Hz frekans aralıklarında gerçekleşir. frekansa bağlı olarak ses emiliminin ve ses iletiminin kaybının belirlenmesini test etmek için 3 numune üzerinde ölçümler yapılmıştır. Ölçüm sonuçları ortalama alınarak verilir.

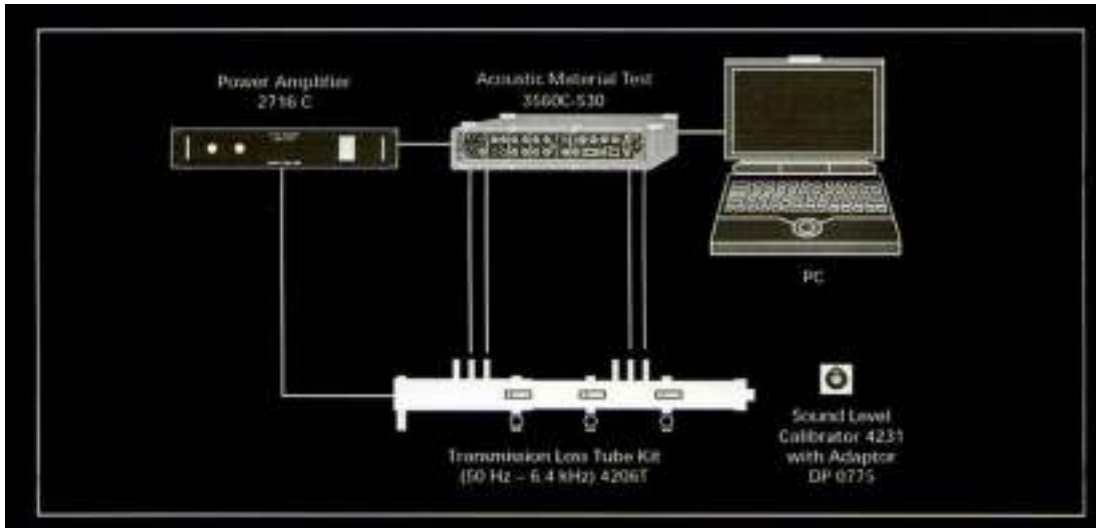
Frekansa bağlı olarak ses emme katsayısını belirlemek için kullanılan ölçüm sistemi Şekil 1'de şematik olarak gösterilmiştir.

Frekansa bağlı ses iletim kaybını belirlemek için kullanılan ölçüm sistemi Şekil 2'de şematik olarak gösterilmiştir.

Şekil 1



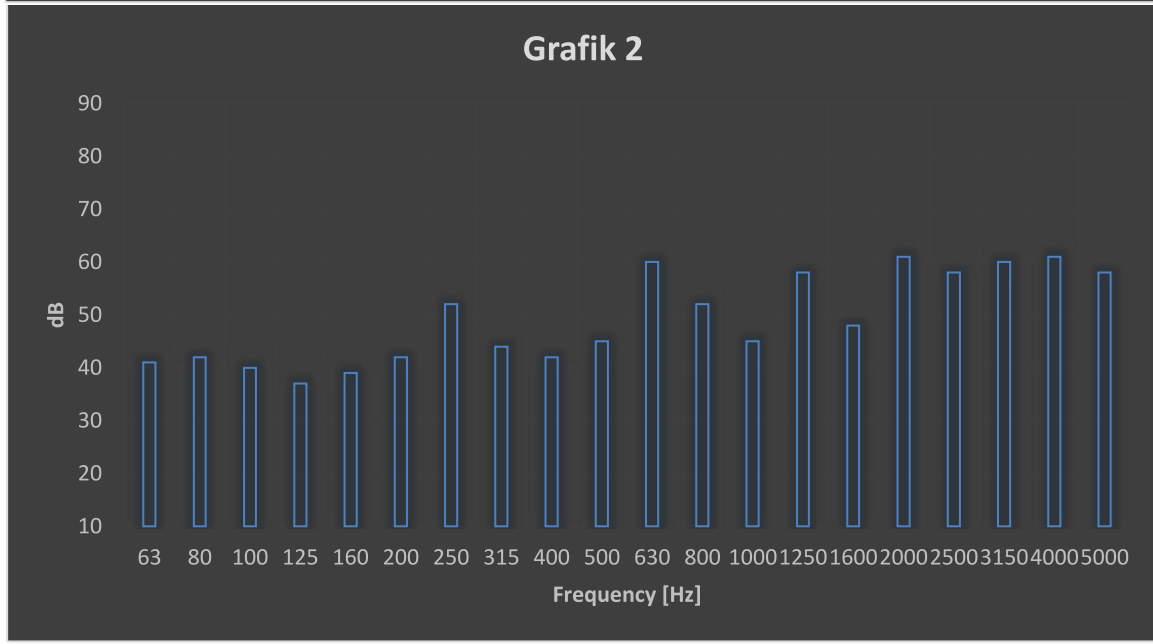
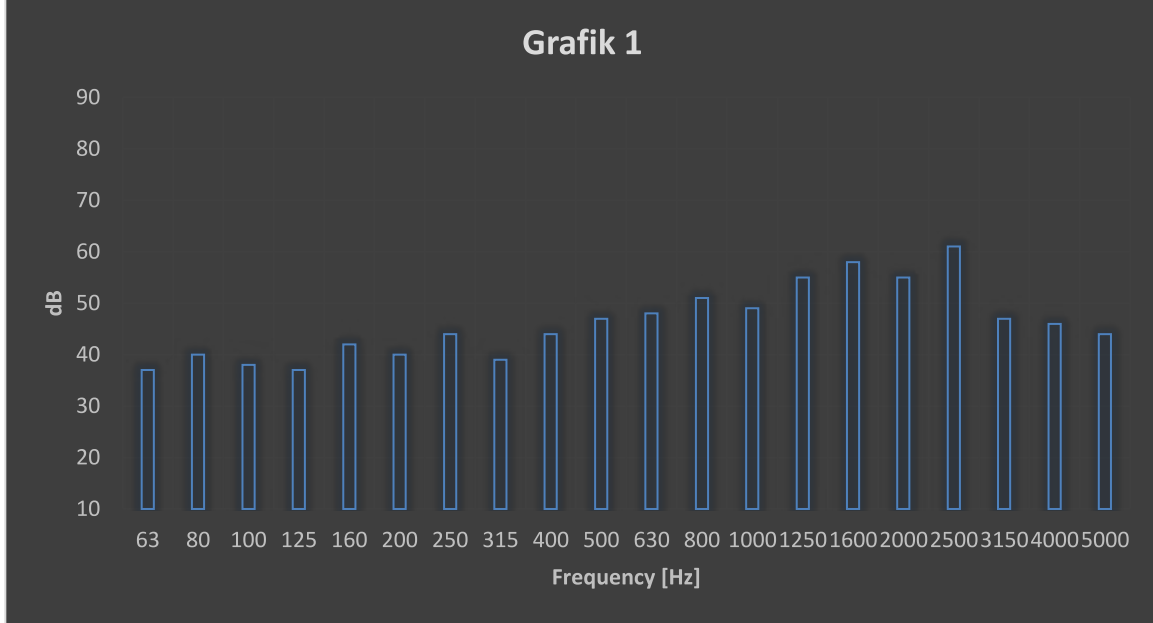
Şekil 2



Ölçümlerin Değerlendirilmesi:

Ses iletim kaybının frekansa bağlı olarak değişimi ve ses emme katsayısı grafiklerde belirtilmiştir. Akustik performansları ölçülen malzemelerin STC (Ses İletim Sınıfı) değerleri aşağıdaki gibidir.

Numune	STC
1	21 dB
2	21 dB
3	22 dB



*****Rapor Sonu*****



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Sample ID : **THERMAL SHIELD**

	TEST/ INSPECTION	Directive	METHOD	RESULT
*	Acoustics — Determination of sound absorption coefficient and impedance in impedance tubes — Part 2: Transfer-function method	The General Product Safety Directive (GPSD) (2001/95/EC)	ISO 10534-2	22 dB

NOTE: This test/inspection result replaces the conformity assessment, can be presented to official institutions, and used in products and brochures.



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PR33-F01/08.10.2015/Rev:17.01.2017-R01

ISO 10534-2: Acoustics — Determination of sound absorption coefficient and impedance in impedance tubes — Part 2: Transfer-function method

TEST RESULT

Procedure

The measurement processes take place in the frequency ranges of 50 - 6400 Hz. Measurements were made on 3 samples for testing the determination of sound absorption and loss of sound transmission depending on frequency. Measurement results are given by taking the average.

The measurement system used to determine the sound absorption coefficient depending on the frequency is shown schematically in Figure 1.

The measurement system used to determine the loss of sound transmission due to frequency is shown schematically in Figure 2.

Figure 1

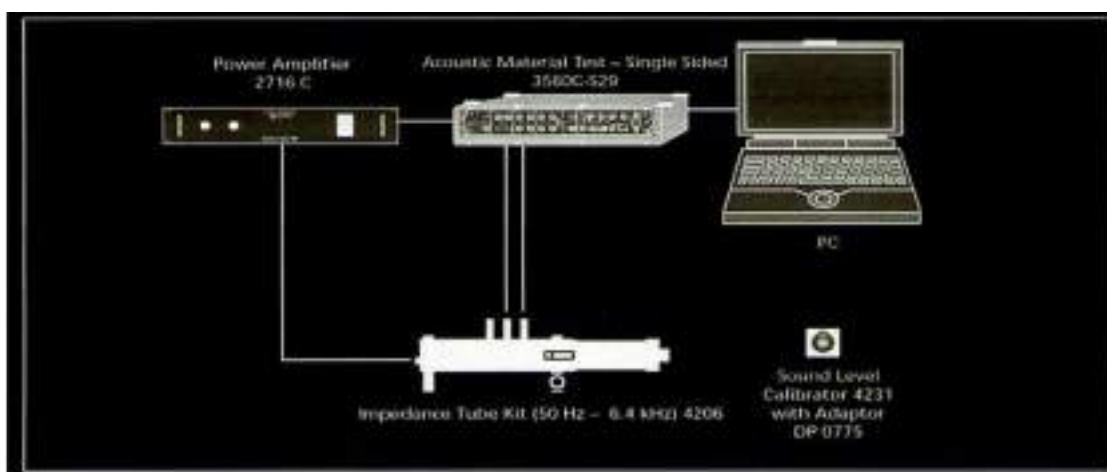
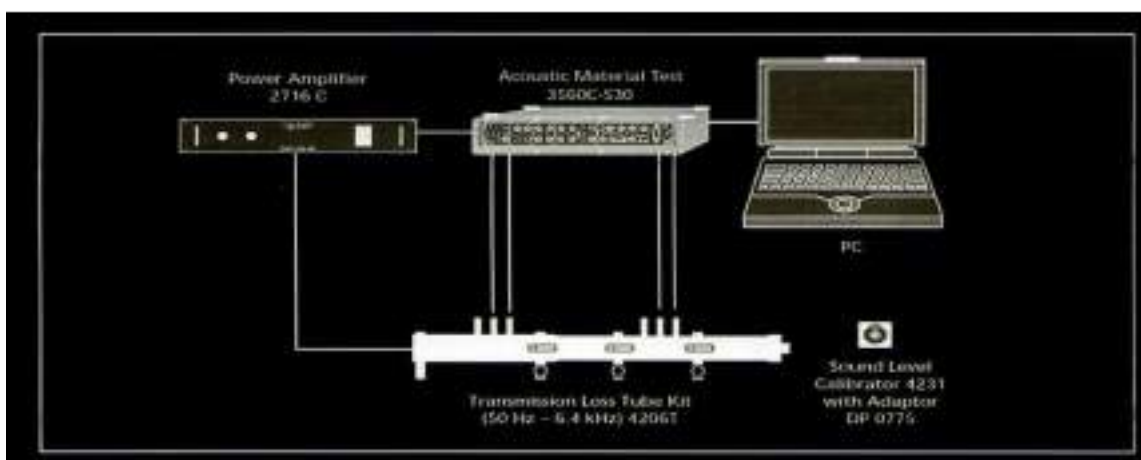


Figure 2

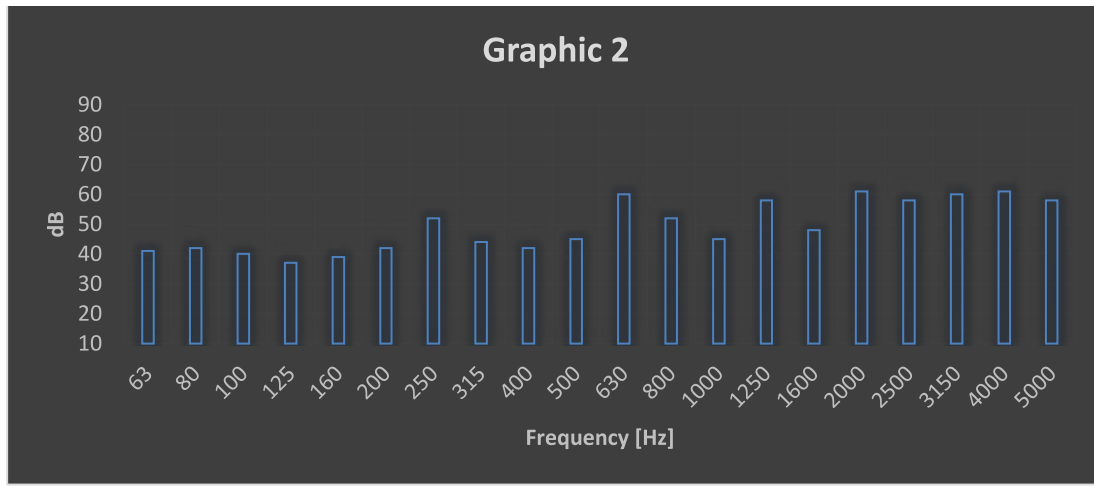
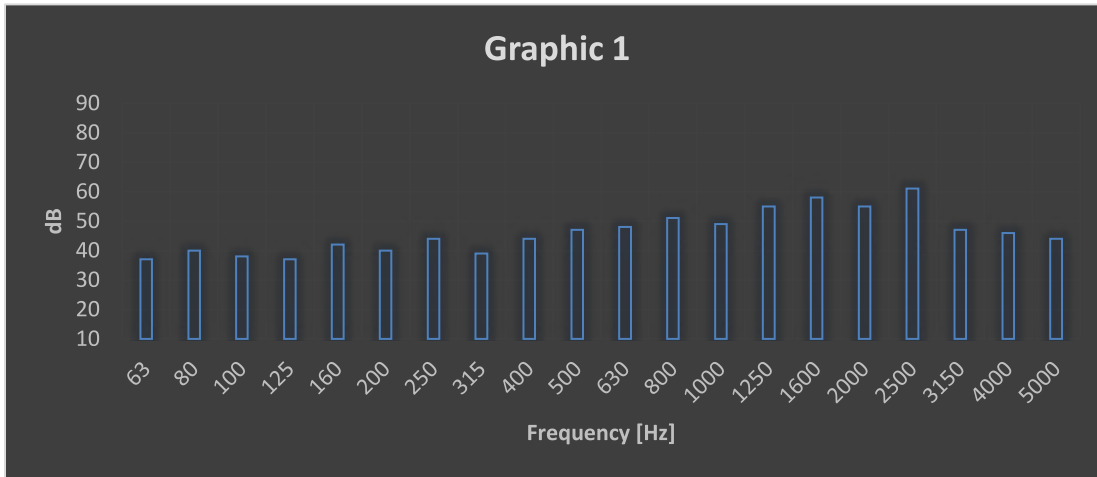


Evaluation of Measurements:

Variation of sound transmission loss and sound absorption coefficient depending on the frequency are indicated in the graphics.

The STC (Sound Transmission Class) values of the materials whose acoustic performances are measured are as follows.

Sample	STC
1	21 dB
2	21 dB
3	22 dB



***** End of Report*****



Report No/ Rapor No : 2024090306
Applicant/Deney Sahibi : **ASTRAL PETROL ÜRÜNLERİ SAN. VE TİC. LTD. ŞTİ.**
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Total number of pages/Rapor Sayfa: 4 (Syf)
Sample ID : **THERMAL SHIELD**

	TEST/ MUAYENE	Direktif	METOT	SONUÇ
*	ALEVLENEBİLİRLİK TESTİ	İnşaat Ürün Denetimleri AB 305/2011 89/106/EEC	EN 13501-1	A-S1,d0

NOT: Bu test/muayene sonucu uygunluk değerlendirmesi yerine geçer, resmi kurumlara sunulabilir, ürün ve broşürlerde kullanılabilir.



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EN 13501-1: ALEVLENEBİLİRLİK TESTİ

Test Sonucu

Yapı ürünleri ve yapı elemanları, yangın sınıflandırması. Bölüm 1: Yangına karşı davranış testlerinden elde edilen veriler kullanılarak sınıflandırma.

Bu standart, yapısal elemanlarla birlikte kullanılan ürünler de dahil olmak üzere tüm yapı ürünlerinin aleve karşı davranışını kapsamaktadır.

Muayene ve Test Hükümleri:

Kural/Testin Numuneye Uygulanması Gerekmiyorsa (Numuneye Uygulanamaz) NU

Numune kurallara uyuyorsa (geçti) P

Test Edilen Numune Kurallara Uygun Değilse (Solda) K

Herhangi Bir Nedenle Uygulanmayan Bir Kural/Deney Varsa (Mümkün Değil) Y

Numune No	1	2	3	4	5	6
Yanmazlık (Evet/Hayır)	Evet	Evet	Evet	Evet	Evet	Evet
Alevin yayılıp yayılmadığı (Evet/Hayır)	Evet	Evet	Evet	Evet	Evet	Evet
Alev Yayılma Süresi	-	-	-	-	-	-
Filtre Kağıdında Yanma (Evet/Hayır)	Hayır	Hayır	Hayır	Hayır	Hayır	Hayır
Sonuç						
Gözlemler: Örneklerin ateşlemesi vardı. Alev, deney süresi içinde ölçüm hattına ulaşmadı. Damlama, erime ve yanma yok, filtre kağıdı yanmadı.						

İlgili Ürün Standardı ve Atıflar: Yangına Tepki Testi (EN 13501-1 A _{fl} Sınıfı)	
Koşullandırma Detayları: Test numuneleri EN 13238'de 4.3 C'ye göre 23 ± 2° C'de ve %50 ± 5 bağıl nemde şartlandırılmıştır.	
Sınıf A _{fl} (TS EN ISO 13501-1 Madde 8.3)	Sınıfa uygunluğun belirlenmesi için, bir ürün kullanın, NF EN 13501-1'e göre aleve maruz kalma süresi A _{fl}
Test Örneği	Uzunluk -- mm, Genişlik -- mm, Kalınlık — mm
Maruz Kalma Gereksinimleri	Aleve maruz kalan yüzey

SONUÇ: Testler ve testler TS EN ISO 13501-1 Avrupa Standardına göre yapılmıştır. Ürün testi başarıyla geçti.

"Bu deneyin sonucu, bir ürünün test numunesinin, testin uygulandığı özel koşullar altındaki davranışıyla ilgilidir; Gerçek kullanım altında bir ürünün potansiyel yangın tehlikesini değerlendirmek için tek bir kriter yoktur. "

Yangına tepki

Ürünün yanma sınıfı (Euroclasses) EN 13501-1'e uygun olarak belirlenmelidir.

TS EN 13501-1 - Yanmazlık deneyi (TS EN ISO 1182)

Bu test, bir ürünün son kullanımından bağımsız olarak, bir yangına katkının önemli olup olmadığını belirlemek için gerçekleştirilir.

Malzeme	Kural / Test	Sonuç / Değerlendirme	Karar
5	Test numunesi		
	---	---	GEÇTİ
6	Klima		
	Test numuneleri EN 13238'de belirtildiği şekilde şartlandırılmalıdır. Test numuneleri, $(60 \pm 5) ^\circ \text{C}$ sıcaklıkta hava sirkülasyonlu bir fırında 20 saat ila 24 saat arasında kurutulmalı ve test edilmelidir. Tutulmadan önce bir kurutucuda ortam sıcaklığına soğumaya bırakılmalıdır. Her numunenin kütlesi, deneyden önce 0,01 g hassasiyetle belirlenmelidir.	Kondisyon Süresi: 1 hafta Koşullandırma Sıcaklığı: $23 \pm 2 ^\circ \text{C}$ Kondisyon Nemi: $50 \pm 5\%$ EN 13238 4.3 Sabit süre için koşullandırma a) En az bir haftalık şartlandırma süresi; 2) çimento esaslı ürünler;	GEÇTİ
8	Sonuçların görüntülenmesi Ölçülen kütle kaybı Kütle kaybı, beş test numunesinin her biri için % olarak hesaplanır ve kaydedilir.		
8.1	Yanmazlık Ölçülen toplam sürekli alevlenme süresi, beş test numunesinin her biri için saniye cinsinden hesaplanır ve kaydedilir.	1. Test	2,12 MJ/kg TS EN ISO 11925-2
8.2	Not 1: TS EN 13501 -1 Sınıfı Homojen ve homojen olmayan mamuller $1t \leq 30^\circ \text{C}$ ve ,m ve %50 ve $t_f=0s$ kriterlerini karşılamalıdır. A_{fl}	2. test	2,13 MJ/kg TS EN ISO 11925-2
8.3	Not 2: TS EN 13501-1 Sınıfı Homojen ve homojen olmayan mamuller $\Delta t \leq 50^\circ \text{C}$ ve Δm olmayan %50 ve t_f Sınıf 20s kriterlerini karşılamalıdır. A_{fl} Not 3: TS EN 13501-1 Sınıfı Homojen mamuller PCS ojen 2.0 MJ/kg kriterlerini karşılamalıdır. A_{fl}	3. Test	2,14 MJ/kg TS EN ISO 11925-2
			GEÇTİ

THERMAL SHIELD' in TS EN 13501-1'e göre yangına karşı davranışına göre sınıflandırılması:

A

Test yöntemi	Parametre	Test sayısı	Sürekli parametrenin ortalaması	Sonuçlar Uygunluk parametreleri
TS EN 13823	FIGRA0,2Mj (W/s)	3	15	≥20
	LFS > tarafı	3	(-)	Hayır
	THR600s(MJ)	3	2,3	≤4,0
	SMOGRA (m2/s2)	3	20	≤30
	TSP600s (m)	3	25	≤50
	Damlalar ve damlacıklar	3	(-)	Hayır

(-): Uygulanamaz

(1) Yüzeyin alev maruz kalması

(2): Kenarın alev maruz kalması (c) EN 14509:2014 standardı C.1.2.2.a)

Test yöntemi	Parametre	Parametre	Uygunluk kriterleri
TS EN 13823	FIGRA _p 2 MJ [G/sn]	15	< 20 (A)
	THR600s (MJ)	2,5	<4(A)
	LFS < tarafı	(-)	Evet (A)
	SMOGRA [m2/s2]	12	<30 (S1)
	TSP600s [m]	25	<50 (S1)
	yanma damlaları / partiküllerin yanma süresi (leri)	Hayır	Hayır (d0)

(-): Uygulanamaz

THERMAL SHIELD'in yangın davranışına göre sınıflandırılması:

A

Duman oluşumu için ek sınıflandırma:

S1

Yanan damlalar / boncuklar için ek sınıflandırma:

d0

Toplam kanıt için yangına tepki

Yanmazlık Davranışı		Duman			Düşen Damlalar	
A	-	s	1	t	d	0

*****Rapor Sonu*****