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TSE DENEY ve KALİBRASYON MERKEZİ BAŞKANLIĞI
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HEADSHIP OF TSE TEST and CALIBRATION CENTER
CONSTRUCTION MATERIALS FIRE AND ACOUSTICS LABORATORY DIRECTORATE

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

AB-0001-T
502769
12-19

MUAYENE VE DENEY RAPORU
TEST REPORT

Deneyi Talep Eden/Firma (Adı,Adresi,Şehir vb.) *Requesting/Customer (Name,Adress,City etc.)*	:	NOTERSON ENDÜSTRİYEL ENERJİ VERİMLİLİK LTD. ŞTİ (NOTERSON ENDÜSTRİYEL ENERJİ VERİMLİLİK LTD. ŞTİ: OĞUZLAR MAH. 1388.SOK. NO:30/3 BALGAT ÇANKAYA Çankaya-ANKARA)
Deney Talep Tarihi/No *Order Date / No*	:	19.11.2019 / 355773
Numunenin Tanımı (No,Cins, Marka, Tip, Tür, Model vb.) *Sample Description(No,Type,Mark,Model etc.)*	:	551817,SU BAZLI AKRİLİK KAPLAMA, ISOLLAT-02 , - , - , - , 15.00 adet *551817,WATER BASED ACRYLIC COATING,ISOLLAT-02,-,-,-,15,00 item*
Numune Kabul Tarihi *Test Item Receipt Date*	:	19.11.2019 *Samples were taken by the client.*
Deneylerin Yapıldığı Tarih *Date of Test*	:	19.11.2019 - 28.11.2019
Uygulanan Standard / Metod *Applied Standard/Method*	:	IMO FTP CODE:2021-01 , TS ISO 5658-2:2015-10 *IMO FTP CODE:2021-01 , TS ISO 5658-2:2015-10*
Raporun Sayfa Sayısı *Number of pages of the report*	:	4
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.

The Turkish Accreditation Acency(TURKAK) is signatory to the multilateral agreements of the European co-operation for the Accreditation(EA) and of the International Laboratory Accreditation(ILAC) for the Mutual recognation 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.

Numune müşteri tarafından alınmıştır, bu rapordaki sonuçlar numunenin teslim alındığı hali için geçerlidir. Bu rapor özel deney talebine istinaden düzenlenmiş olup, Standartlara Uygunluk Belgesi niteliğinde değildir. Partiyi temsil etmez, Piyasa Gözetim ve Denetim Faaliyetlerine esas oluşturmaz, 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.

The sample was taken by the customer and the results in this report are valid for the status of the sample being received. This report has been prepared in accordance with the request for special tests and is not qualified as a Certificate of Conformity to Standards. It does not represent the party, does not constitute a basis for Market Surveillance and Audit Activities, and cannot be used in announcement, advertisements and tenders in contradiction with the provisions of unfair competition in Articles 54 and 55 of the Turkish Commercial Law No. 6102. TSE cannot be held responsible in case of violation of these issues in legal and criminal terms.

Mühür *Seal*	Tarih *Date*	Deney Sorumlusu *Person in charge of tests*	Kontrol Eden *Reviewer*	Onaylayan *Approved by*
	4/12/2019	Arda ATAKOL Deney Personeli Testing Expert	Alpay ŞÜMER Teknik Şef V. Technical Chief Dep.	Metehan ÇALIŞ Laboratuvar Müdürü Laboratory Manager

MUAYENE - DENEY SONUÇLARI *TEST RESULTS*

International Maritime Organisation
International Code for Application of Fire Test Procedures, 2010 (2012 Edition)
Part 5: Surface Flammability Test

The tests, results of which are expressed in this test report were conducted according to the instructions given in "Part 5: Surface Flammability Test" of 2012 version of "International Code for Application of Fire Test Procedures, 2010 (FTP Code 2010)" with regards to International Convention for the Safety of Life at Sea (SOLAS) chapter 11-2 which was put into effect by International Maritime Organisation **RESOLUTION MSC.61(67)**.

The necessarry alterations in smoke density and toxicity measurements on TS EN ISO 5658-2 standard test method were made as explained respectively in Appendix 1 and Appendix 2 of the mentioned document.

This test method provides data for a comparative analysis in smoke and toxic gas generation of the analyte, however it does not contain any means of real life fire propagation modelling. For this reason, the reported results are not intended to be used to define the fire hazard of the analyte material in real fire scenarios.

This report was translated from the original TSE test report in Turkish with the same report number and date.

TS ISO 5658-2 Reaction to fire tests - Spread of flame

Part 2: Lateral spread on building and transport products in vertical configuration

Sponsor	NOTERSON ENDÜSTRİYEL ENERJİ VERİMLİLİK LTD. ŞTİ. Oğuzlar Mh. 1388.. Sk. No: 30/3 Balgat, Çankaya, ANKARA
Demanded by	NOTERSON ENDÜSTRİYEL ENERJİ VERİMLİLİK LTD. ŞTİ. Oğuzlar Mh. 1388.. Sk. No: 30/3 Balgat, Çankaya, ANKARA
Manufacturer	SPECIAL TECHNOLOGIES LLC. 623704, Sverdlovsk Region, Berezovsky, 39/35 Chapayev St. RUSSIA
Test date	28.11.2019

Sample Details

Arrival Date	20.11.2019
Sample name	ISOLLAT-02
Description	Multi purpose, water-based acrylic coating material.
Application	
Thickness	1,2 mm
Weight per unit area	0,36 kg/m^2
Color / surface	White, rough
Substrate	Steel plate (3 mm thickness)

MUAYENE - DENEY SONUÇLARI *TEST RESULTS*

Sampling and Preparation

Samples were prepared and delivered to the laboratory by the sponsor. They were placed in the conditioning environment without any other preparation. The samples were covered with aluminium foil and were put in the sample holder as explained in the method standard before testing. The support panels were calcium silicate with 10 mm thickness.

Conditioning

The samples were conditioned at 23 ± 2 °C and 50% ± 5% relative humidity for 8 days.

Deviation from the test method

There was no deviation from the test method.

Test Results

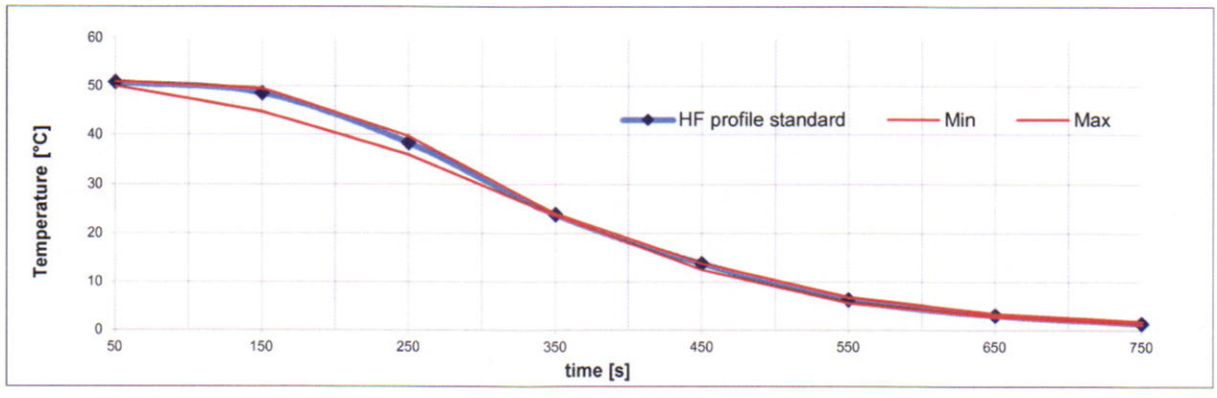

Figure 1: Heat flux profile

Number of samples	3
Pilot flame gas	95% purity, commercial grade propane

Sample	**1**	**2**	**3**
Duration (s)	600	600	600
Time to ignition (s)	36	27	33
Furthest flame front (mm)	180	190	200
Additional observations (if any)	-		

Distance (mm)	**1**		**2**		**3**	
	time (s)	**Qsb [kJ/m²]**	**time (s)**	**Qsb [kJ/m²]**	**time (s)**	**Qsb [kJ/m²]**
50	51	(-)	66	(-)	48	(-)
100	75	(-)	72	(-)	57	(-)
150	93	4,510	102	4,964	69	3,346
200	Did not reach	(-)	Did not reach	(-)	96	(-)
250	Did not reach	(-)	Did not reach	(-)	Did not reach	(-)

(-) Not applicable.

MUAYENE - DENEY SONUÇLARI *TEST RESULTS*

Variable	1	2	3	Ortalama
CFE_{ort} (Kw/m²) Critical heat flux	46,33	45,42	44,42	45,39
Qsb_{ort} [MJ/m²] Average heat for continuous combustion	4,510	4,964	3,346	4,273
Qsb_{maks} [MJ/m²] Maximum heat for continuous combustion	4,510	4,964	3,346	4,273
Qt [MJ] Total heat released	0,67	0,54	0,74	0,65
Qp [kW] Maximum heat release rate	2,39	2,68	2,23	2,44
Number of flaming droplets	0	0	0	0

Requirements

Variable	Bulkhead, wall and ceiling linings	Floorings	Primary deck coverings
CFE_{ort} (Kw/m²) Critical heat flux	≥ 20,0	≥ 7,0	≥ 7,0
Qsb_{ort} [MJ/m²] Average heat for continuous combustion	≥ 1,5	≥ 0,25	≥ 0,25
Qt [MJ] Total heat released	≤ 0,7	≤ 2,0	≤ 2,0
Qp [kW] Maximum heat release rate	≤ 4,0	≤ 10,0	≤ 10,0
Number of flaming droplets	No droplets	Max. 10	Max 10

The results of these tests are a representation of the behaviour of the sample under specific conditions; they are not intented to be utilized as the sole criteria to evaluate the potential fire hazard of the product.

End of test report.