MUAYENE VE DENEY RAPORU
TEST REPORT

Deney Talep Eden: EA MİMARLIK İNŞ. TEKNOLOJİLERİ SAN.VE TİC.LTD.ŞTİ.
Customer: YENİKALE MAHALLESİ MUSTAFA KEMAL SAHİLNBULV N:338/2 H.AŞIK APT.
Narlıdere-İZMİR

Deney Talep Tarihi/No: 23.08.2016 / 160185
Order Date / No
Numunenin Tanımı: ZEMİN YALITIM ŞİLTEŞİ, PANETTI, PNF, *,-, 1,00 adet
Sample Description/Type,Mark,Model etc.: Sound and Heat Insulation Product,PANETLI,PNF series, 1,00 item

Numune Kabul Tarihi: 23.08.2016
Test Item Receipt Date

Date of Test

Raporun Sayfa Sayısı: 2
Number of pages of the report
Açıklamalar: Remarks

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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.

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This test report represents only tested sample(s), and shall not be used as Product Certificate.

LAB-D-FR-36/01.09.2016-1 1/2
Reaction to fire tests - ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test

Testing Laboratory/Laboratories:
Headship of TSE Testing and Calibration Center
Headship of Electrotechnical and Chemical Group
Directorate of Aegean Regional Laboratories
Ex Laboratory Technical Supervisor

Address(es) : 8780 /1 Sokak No:5 Çığı /İZMİR

Test Results:
- Test was not requested. (NR)
- Test can not be used on sample. (NU)
- Test can not be done with laboratory facilities. (X)
- Test was not evaluated due to lack of declaration/conditions. (NE)
- Test could not be done due to equipment failure. (EF)
- “Appropriate” according to specified conditions (A)
- “Not Appropriate” according to specified conditions (NA)

General Remarks:
- This report is organized in three copies.
- This report cannot be reproduced without permission of TSE.
- This report is only valid for the tested sample/samples.
- “See remark” refers to a remark appended to the report.
- “See appended table” refers to a table appended to the report.
- Throughout this report, a comma is used as the decimal separator.
- All pages of this report is signed and stamped with a blue department seal by authorized test performer.

Company Name : EA MİMARLIK İNŞAAT TEK. SAN. TİC. LTD. ŞTİ.
Company Address : İzmir

Company Statements / Sample Definition : PANETTTI PNF series Sound and Heat Insulation Product (Polyethylene-based foam insulation board)

Related Product Standard and Citations: Reaction to Fire Test (EN 13501-1)
Conditioning Details: Test specimens conditioned at 23±2°C and 50±5% relative humidity according to the EN 13238 clause 4.3.c. (TS EN ISO 11925-2 Clause 6.)

Test Sample (TS EN ISO 11925-2 Clause 5)
Length: 250mm,
Width: 90mm
Thickness: 10mm

Exposure Conditions (TS EN ISO 11925-2 Clause 7.3.3)
The test sample was exposed to the flame (application time is 30 s) from the surface.

Test Results (TS EN ISO 11925-2 Clause 8.)

<table>
<thead>
<tr>
<th>Number of samples</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combustion (Yes/No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Edge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flame spread to 150 mm (Yes/No)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>150mm Flame Spread Time(T150) Test Duration Fs≤150 mm -Passed</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Test Duration Fs≥150 mm - Failed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combustion filter paper (Yes/No)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>CONCLUSION</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

Observations: Combustion did not occur on the samples. Flame did not reach 150mm line measuring in the test period.
Dripping did not occur, melting and combustion did not occur, combustion on filter paper did not occur.

**RESULT:** Test sample/samples tested according to TS EN ISO 11925-2 :2010 / April 2011 Turkish Standard.

"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."

LAB-D-36/01.09.2016-1
MUAYENE VE DENEY RAPORU
TEST REPORT

Deneyi Talep Eden : EA MİMARLIK İNŞ. TEKNOLOJİLERİ SAN.VE TİC.LTD.ŞTİ.

Customer (Name, Adres, City etc.) : YENIKALE MAHALLESİ MUSTAFA KEMAL SAHİNLİBULV N:338/2 H.AŞIK APT. Narlıdere-İZMİR

Deney Talep Tarihi/No : 23.08.2016 / 160185

Order Date / No : ZEMİN YALITIM ŞILTESI, PANETİ , PNF, -,-, - 1,00 adet

Numunenin Tanımı (Cinsi, Marka, Tip, Tür, Model vb.) : Sound and Heat Insulation Product, PANETİ, PNF series, 1,00 item

Sample Description (Type, Mark, Model etc.) :

Numune Kabul Tarihi : 23.08.2016

Test Item Receipt Date :

Deneylerin Yapıldığı Tarih Date of Test : 23.08.2016 - 29.09.2016


Raporun Sayfa Sayısı : 5

Number of pages of the report :

Açıklamalar : Remarks

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Mühür Tarih :

Seal Date :

Deney Sorumlususu :

Person in charge of tests :

Kontrol Eden :

Reviewer :

Onaylayan : Approved by :

Sahap Güler PAŞA Laboratuvar Müdürü

Bu rapor, hizmetli laboratuvarının yazılı talebini olmadan kimsenin kopyalama sağlanmasıdır. İmzaat ve mahkemelerin raporlar geçerlidir. Bu rapor, ancak deneyi yapılan numune için geçerlidir ve “Üretim Belgesi” yerine geçmez. This test report shall not be reproduced other than in full except with the written permission of the laboratory. This reports without signature and seal are not valid. This test report represents only actual samplepuf, and shall not be used as Product Certificate

LAB-ID-FTR-36/09.09.2016-I

1/5
TS EN 9239-1: JANUARY 2011
FLOORING REACTION TO FIRE TESTS –
PART 1: DETERMINATION OF THE FIRE BEHAVIOR WITH USING THE RADIANT HEAT SOURCE

Testing Laboratory/Laboratories:
Headship of TSE Testing and Calibration Center
Headship of Electrotechnical and Chemical Group
Directorate of Aegean Regional Laboratories
Ex Laboratory Technical Supervisor

Address(es): 8780 /1 Sokak No:5 Çiğli /İZMİR

Test Results:
- Test was not requested (NR)
- Test can not be used on sample. (NU)
- Test can not be done with laboratory facilities. (X)
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COMPANY NAME: EA MİMARLIK İNŞAAT TEK. SAN. TİC. LTD. ŞTİ.
COMPANY ADDRESS: İZMİR

COMPANY STATEMENTS / SAMPLE DEFINITION: PANETTITI PNF series Sound and Heat Insulation Product
(Polyethylene-based foam insulation board)
1. - DESCRIPTION OF TEST METHOD

TS EN 9239-1 : JANUARY 2011 FLOORING REACTION TO FIRE TESTS – PART 1: DETERMINATION OF THE FIRE BEHAVIOR WITH USING THE RADIANT HEAT SOURCE

There is given the test methods for measure data basis for determine flooring behavior when expose to fire. Radiant flux is applied, conditions for flame propagation against the wind, an adjacent room or compartment during the initial phase of a developing fire, the upper surface is heated by flames or hot gases, or both acting on a hallway floor of the thermal radiation levels likely will simulate.

2.- SAMPLE DESCRIPTION

Arrival Date of the sample: 23.09.2016

Sample Description : PANETTI PNF series Sound and Heat Insulation Product

Name of the firm producing the sample : EA MİMARLIK İNŞAAT TEK. SAN. TİC. LTD. ŞTİ.

Production of the sample / Date of receipt of : --

Test Requesting Company Name : EA MİMARLIK İNŞAAT TEK. SAN. TİC. LTD. ŞTİ.

Trademark of the sample: --

**Company Statements:**

<table>
<thead>
<tr>
<th>The sample:</th>
<th>Nominal Values (*)</th>
<th>Measured Values (**)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (mm)</td>
<td></td>
<td>10mm</td>
</tr>
<tr>
<td>Mass per unit area (g/m²)</td>
<td></td>
<td>850 g/m²</td>
</tr>
<tr>
<td>Density (kg/m³)</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

(*) The company declared values
(***) Confirmed by laboratory values
### 3. RESULTS AND OBSERVATIONS

Conditioning:
- TS EN 13238 January 2010 Part 4.3. C. Conditioning: at least 2 weeks, (23 ± 2) °C and % (50 ± 5) relative humidity.
Conditioning the beginning: 23.08.2016

Support Layer and Fixing: 10mm thickness test sample fixed on 12mm thickness and 800kg/m3 density calcium silicate boards with steel frame.
Dimensions: 1040mm x 230mm x 10mm
Pilot burner: Propane
Relative Humidity: 50 %
Temperature: 25°C

<table>
<thead>
<tr>
<th>Test No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combustion time(s.)</td>
<td>2dk</td>
<td>2dk</td>
<td>2dk</td>
</tr>
<tr>
<td>Burn out time (s.)</td>
<td>10dk</td>
<td>10dk</td>
<td>10dk</td>
</tr>
<tr>
<td>Flame spread distance (mm)</td>
<td>&lt;260mm</td>
<td>&lt;280mm</td>
<td>&lt;300mm</td>
</tr>
<tr>
<td>CHF (kW/m²)</td>
<td>&lt;8.4 kW/m²</td>
<td>&lt;8.0 kW/m²</td>
<td>&lt;7.8 kW/m²</td>
</tr>
<tr>
<td>HF 10 (kW/m²)</td>
<td>&lt;8.4 kW/m²</td>
<td>&lt;8.0 kW/m²</td>
<td>&lt;7.8 kW/m²</td>
</tr>
<tr>
<td>HF 20 (kW/m²)</td>
<td>&lt;8.4 kW/m²</td>
<td>&lt;8.0 kW/m²</td>
<td>&lt;7.8 kW/m²</td>
</tr>
<tr>
<td>HF 30 (kW/m²)</td>
<td>&lt;8.4 kW/m²</td>
<td>&lt;8.0 kW/m²</td>
<td>&lt;7.8 kW/m²</td>
</tr>
<tr>
<td>TSP (%/min.)</td>
<td>155</td>
<td>210</td>
<td>240</td>
</tr>
</tbody>
</table>

Observations:
* After pre-heating time was 2min, ignition occurred with the pilot burner.
* 10th minute went out with the withdrawal of the pilot.

(Bfl: Critical flux > 8.0 kW/m². Cfl: Critical flux > 4.5 kW/m². Dfl: Critical flux > 3.0 kW/m². S1 = Smoke < 750 % minutes; S2 = not S1.)
Summary of test results:

As a result of this test, testing under the special conditions is about the behavior of the test sample, a finished product that is being used for the evaluation of the potential fire risk is not intended to be the only criteria. This test results are valid for tested sample.

<table>
<thead>
<tr>
<th>HF-X (kW/m²)</th>
<th>CHF (kW/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HF 10 8.1 kW/m²</td>
<td>1. 8.1 kW/m²</td>
</tr>
<tr>
<td>HF 20 8.1 kW/m²</td>
<td>2. 8.1 kW/m²</td>
</tr>
<tr>
<td>HF 30 8.1 kW/m²</td>
<td>3. 8.1 kW/m²</td>
</tr>
<tr>
<td>4. -</td>
<td></td>
</tr>
<tr>
<td>AVERAGE 8.1 kW/m²</td>
<td></td>
</tr>
</tbody>
</table>

RESULT:

EA MİMARLIK İNŞAAT TEK. SAN. TİC. LTD. ŞTİ. company that has produced PANETTTI PNF series Sound and Heat Insulation Product (Polyethylene-based foam insulation board) samples are tested according to TS EN 9239-1 January 2011 Turkish Standard.

Test results given in this test report and TS EN ISO 11925-2 topical 09.2016/614192 numbered test report COMPLY with Bfl S1 class criteria according to Table-2 TS EN 13501-1 April 2013.