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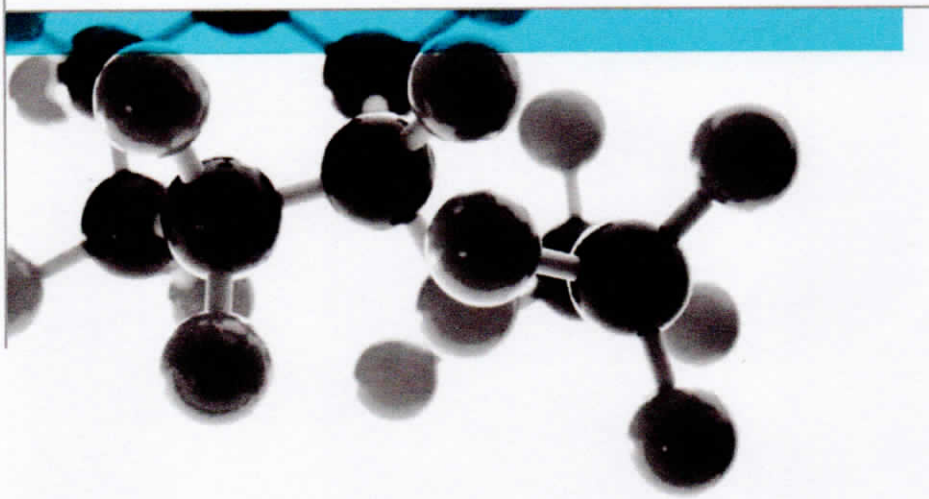
# Class 0 Summary Report



**Including Opinion Of Compliance With The Requirements For A Class 0 Surface As Defined In Paragraph A13(b) Of Approved Document B (Volumes 1 & 2), (2006 Edition) 'Fire Safety' To The Building Regulations 2000**

A Report To: PT. Toilon Indonesia

Document Reference: 360023 & 364746

**Date:** 18th May 2016

**Issue No.: 1**



Testing
Advising
Assuring



THERMOTECH PT. Thermo Tech Solutions

## Executive Summary

**Objective**

To assess the results of tests to BS 476:Part 6:1989+A1: 2009 and BS 476:Part 7:1997, obtained on specimens of the following product and to provide an opinion of compliance with the requirements for a Class 0 surface, as defined in Approved Document B to the Building Regulations 2000.

| Generic Description | Product reference | Thickness / application rate | Weight per unit area or density |
|---|---|---|---|
| Reinforced aluminium foil faced foam material | "TOILON Insulation" | 15mm | 1.44kg/m$^2$ * |
| **Individual components used to manufacture composite:** | | | |
| Foil (test face) | "Reinforced Aluminium Foil" | 34 microns | Unwilling to provide |
| Reinforcement | "Reinforced Aluminium Foil" | Unwilling to provide | Unwilling to provide |
| Adhesive | "ASA 610 SERI" | Unable to provide | Not stated |
| Foam | "TOILON" | 15mm | 25kg/m$^3$ |
| ***Determined by Exova Warringtonfire** | | | |
| **Please see pages 5 & 6 of this test report for the full description of the product tested** | | | |

**Test Sponsor**

PT. Toilon Indonesia, JL. Raya Serang KM 16.8, Desa Telaga, Cikupa, Tangerang 15710, Indonesia.

**Opinion:**

We consider the results of the tests to BS 476:Part 6:1989+A1: 2009 and BS 476:Part 7: 1997, demonstrate that the product, as tested, complies with the requirements for Class 0, as defined in paragraph A13(b) of Approved Document B, `Fire Safety', to the Building Regulations 2000.

**Date of Test**

21st & 22nd December 2015 & 18th May 2016

## Signatories

| | |
|---|---|
| Responsible Officer<br>C. Meachin *<br>Technical Officer | Authorised<br>S. Deeming *<br>Business Unit Head |

* For and on behalf of **Exova Warringtonfire**.

Report Issued: 18th May 2016





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# Test Details

**Terms Of Reference**

To assess the results of tests to BS 476:Part 6:1989+A1: 2009 and BS 476:Part 7:1997, obtained on specimens of a product and to provide an opinion of compliance with the requirements for a Class 0 surface, as defined in Approved Document B to the Building Regulations 2000.

**Introduction**

Specimens of a product have been tested in accordance with the test methods specified in BS 476: Part 6: 1989+A1: 2009 'Method of test for fire propagation for products' and BS 476: Part 7: 1997 'Method of test to determine the classification of the surface spread of flame of products'. The results of the tests are fully reported in the **Exova Warringtonfire** test reports No's. 360023 and 364746.

This summary test report has been prepared at the request of the sponsor and relates the results of the tests to the requirements for a Class 0 surface of a material or composite product, as defined in paragraph A13(b) of Approved Document B, `Fire Safety', to the Building Regulations 2000.

This summary should be read in conjunction with, and not accepted as a substitute for, the **Exova Warringtonfire** test reports No's. 360023 and 364746. Those test reports may include additional information which may be relevant to the assessment of the potential fire hazard of the product.

**Face subjected to tests**

The specimens were mounted in the test positions such that the foil face was exposed to the heating conditions of the tests.

**Results of test**

The following results were obtained for the specimens, which were tested.

**BS 476: Part 6: 1989+A1: 2009**

| | | |
|---|---|---|
| Fire propagation index, I | = | 9.3 |
| subindex, $i_1$ | = | 3.9 |
| subindex, $i_2$ | = | 4.1 |
| subindex, $i_3$ | = | 1.3 |

**BS 476: Part 7: 1997**

Class 1 surface spread of flame

The test results relate only to the behaviour of the test specimens of the product under the particular conditions of the test, they are not intended to be the sole criterion for assessing the potential hazard of the product in use.

## Description of Test Specimens

The description of the specimens given below has been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

| | | |
|---|---|---|
| General description | | Reinforced aluminium foil faced foam material |
| Product reference | | "TOILON Insulation" |
| Name of manufacturer | | PT. TOILON INDONESIA |
| Thickness | | 15mm (stated by sponsor)<br>16.86mm (determined by **Exova Warringtonfire**) |
| Weight per unit area | | 1.44kg/m$^2$ (determined by **Exova Warringtonfire**) |
| Foil | Generic type | Aluminium |
| | Product reference | "Reinforced Aluminium Foil" |
| | Name of manufacturer | **See Note 1 Below** |
| | Thickness | 34 microns |
| | Weight per unit area | **See Note 1 Below** |
| | Colour reference | "Silver" |
| | Flame retardant details | **See Note 2 Below** |
| Reinforcement | Generic type | **See Note 1 Below** |
| | Product reference | "Reinforced Aluminium Foil" |
| | Name of manufacturer | **See Note 1 Below** |
| | Colour reference | **See Note 1 Below** |
| | Thickness | **See Note 1 Below** |
| | Weight per unit area | **See Note 1 Below** |
| | Type of weave | **See Note 1 Below** |
| | Flame retardant details | **See Note 2 Below** |
| Adhesive | Generic type | Acryl copolymer |
| | Product reference | "ASA 610 SERI" |
| | Name of manufacturer | **See Note 1 Below** |
| | Application rate | **See Note 3 Below** |
| | Application method | Sticker adhesive |
| | Flame retardant details | **See Note 2 Below** |
| | Curing process | **See Note 3 Below** |

Continued on next page

| | | |
|---|---|---|
| Foam | Generic type | Cross-linked polyethylene (PE) |
| | Product reference | "TOILON" |
| | Detailed description | **See Note 1 Below** |
| | Name of manufacturer | PT. TOILON INDONESIA |
| | Thickness | 15mm |
| | Density | 25kg/m³ |
| | Colour reference | "Black" |
| | Flame retardant details | **See Note 1 Below** |
| Brief description of manufacturing process | | **See Note 1 Below** |

**Note 1: The sponsor was unwilling to provide this information.**

**Note 2: The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the component.**

**Note 3: The sponsor was unable to provide this information.**

The description of the specimens as given above is not as detailed as would usually be the case for descriptions included in **Exova Warringtonfire** test reports and the description may not fully comply with the requirements of the test standard. In all other respects however the tests were conducted fully in accordance with the requirements of the test standard and the test results are valid.

## Classification

**Opinion**

We consider the results of the tests detailed above demonstrate that the product, as tested, complies with the requirements for Class 0, as defined in paragraph A13(b) of Approved Document B, `Fire Safety', to the Building Regulations 2000.

**Validity of opinion**

This opinion is based on the requirements of the Building Regulations at the date of this report. If the Building Regulations are revised or amended in any way subsequent to that date, care must be taken to ensure that this opinion is not invalidated by those revisions or amendments.

The opinion has been formulated on the assumption that the specimens are representative of the product in practice. **Exova Warringtonfire** was not involved in any sampling or selection procedures which would confirm this or in any audit testing which would provide confidence in the consistency of the product in the tests.





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## Revision History

| | |
|---|---|
| Issue No : | Re-issue Date: |
| Revised By: | Approved By: |
| Reason for Revision: | |