

**Test Report No. 7191340918-CHM24-FAR_CR1
(Reissued on 12 September 2024)**



Date: 11 September 2024 Email: Daniel.Leong@tuvsud.com

Client's Ref: -

**Add value.
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SUBJECT

Fluorescent UV Light Exposure Test

CLIENT

PT. Toilon Indonesia
Jl. Raya Serang Km. 16,8,
Talaga, Cikupa,
Tangerang Regency,
Banten 15710

Attn: Mr Je Hwan Young

SAMPLE SUBMISSION DATE

29 August 2024

DATE TEST CONDUCTED

06 September 2024 – 10 September 2024

DESCRIPTION OF SAMPLE

One sample described as follows was submitted by the Client:

Sample Name	:	Toilon Crosslinked Polyolefin Closed Cell Foam
Brand	:	TOILON
Model Name	:	ThermoTech IXPE FR Class O (Premium UV Aluminum) ThermoFoam XLPE FR Class O (Premium UV Aluminum)
Dimension	:	150 x 70 mm
Quantity	:	6



Laboratory:
TUV SÜD PSB Pte. Ltd.
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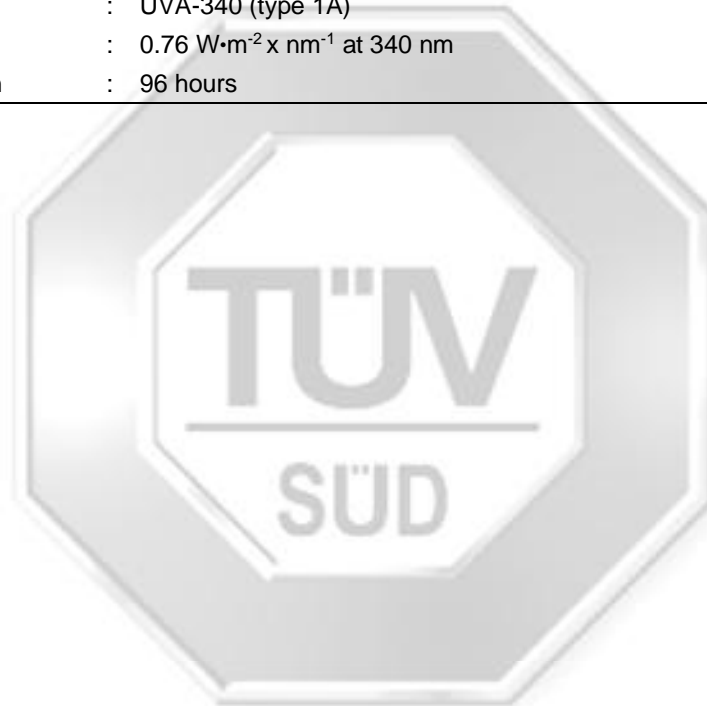


METHOD OF TEST

- 1) ISO 4892-3: 2016
"Methods of exposure to laboratory light sources"
Fluorescent UV lamps – Method A Cycle No.1

Test conditions:

Apparatus used	: QUV Accelerated Weathering Tester
Operating cycle	: 8 hours UV light at $60 \pm 3^{\circ}\text{C}$, followed by 4 hours condensation without UV light at $50 \pm 3^{\circ}\text{C}$ (Cycle 1)
Light source	: UVA-340 (type 1A)
Irradiance	: $0.76 \text{ W}\cdot\text{m}^{-2} \times \text{nm}^{-1}$ at 340 nm
Test duration	: 96 hours



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RESULTS

Toilon Crosslinked Polyolefin Closed Foam with Premium UV Aluminum	Visual appearance after 96 hours exposure to Fluorescent UV Light Exposure Test
Sample 1	- No cracking, peeling - Very slight yellowing
Sample 2	- No cracking, peeling - Very slight yellowing
Sample 3	- No cracking, peeling - Very slight yellowing

FARAH DAYANA
 TESTING OFFICER

LEONG ZHI SHENG, DANIEL
 CHEMIST
 COATINGS
 CHEMICAL & MATERIALS

Amendment History

1. This report 7191340918-CHM24-FAR_CR1 was amended from report no. 7191340918-CHM24-FAR on 12 September 2024.
 - i. On Page 1 of 7, under **DESCRIPTION OF SAMPLE**, the sample name was amended from "Toilon IXPE/XLPE Crosslinked Polyethylene Foam" to "Toilon Crosslinked Polyolefin Closed Cell Foam" as per Client's request.
 - ii. On Page 1 of 7, under **DESCRIPTION OF SAMPLE**, the details were amended to include following model names, "ThermoTech IXPE FR Class O (Premium UV Aluminum)" and "ThermoFoam XLPE FR Class O (Premium UV Aluminum)" as per Client's request.
 - iii. On Page 3 of 7, under **RESULTS**, the sample name was amended from "Toilon IXPE/XLPE Crosslinked Polyethylene Foam" to "Toilon Crosslinked Polyolefin Closed Foam with Premium UV Aluminum" as per Client's request.
 - iv. On Page 4 of 7, under **APPENDIX**, the sample name was amended from "Toilon IXPE/XLPE Crosslinked Polyethylene Foam" – Sample 1 to "Toilon Crosslinked Closed Cell Foam (Premium UV Alum) / Sample 1" as per Client's request.
 - v. On Page 5 of 7, under **APPENDIX**, the sample name was amended from "Toilon IXPE/XLPE Crosslinked Polyethylene Foam" – Sample 2 to "Toilon Crosslinked Closed Cell Foam (Premium UV Alum) / Sample 2" as per Client's request.
 - vi. On Page 6 of 7, under **APPENDIX**, the sample name was amended from "Toilon IXPE/XLPE Crosslinked Polyethylene Foam" – Sample 3 to "Toilon Crosslinked Closed Cell Foam (Premium UV Alum) / Sample 3" as per Client's request.
 - vii. On Page 5 and 6 of 7, the Test Report No. was amended from "7191314657-CHM23-12-FAR" to "7191340918-CHM24-FAR_CR1"

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APPENDIX

Toilon Crosslinked Closed Cell Foam (Premium UV Alum) / Sample 1

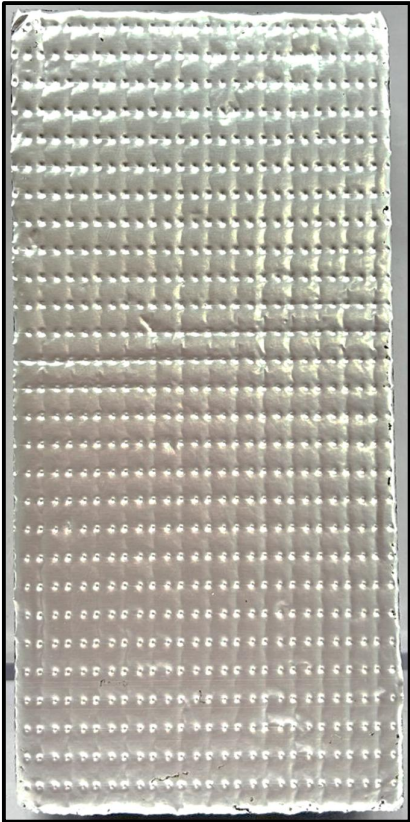


Figure 1. Before test

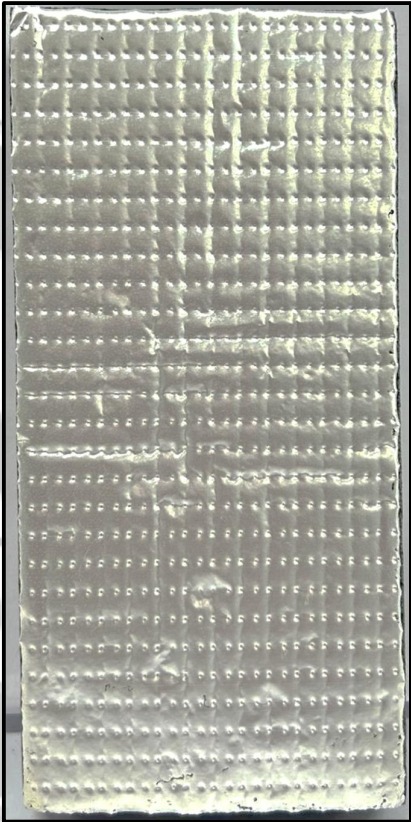


Figure 2. After exposure to 96 hours of
Fluorescent UV Light and Condensation Test

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APPENDIX (Cont'd)

Toilon Crosslinked Closed Cell Foam (Premium UV Alum) / Sample 2

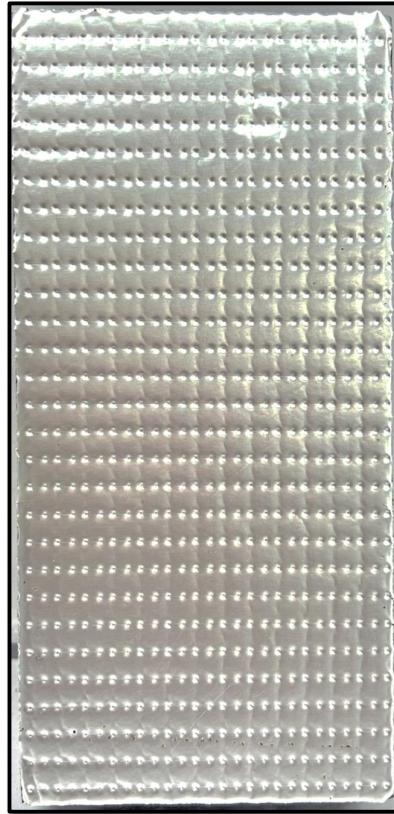


Figure 3. Before test

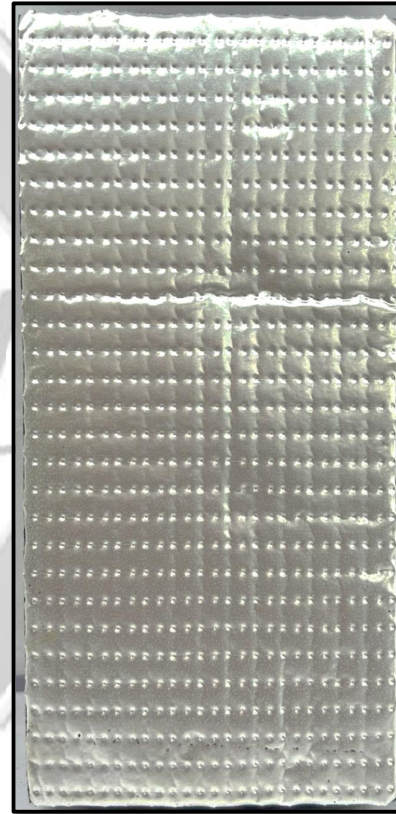


Figure 4. After exposure to 96 hours of
Fluorescent UV Light and Condensation Test

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APPENDIX (Cont'd)

Toilon Crosslinked Closed Cell Foam (Premium UV Alum) / Sample 3

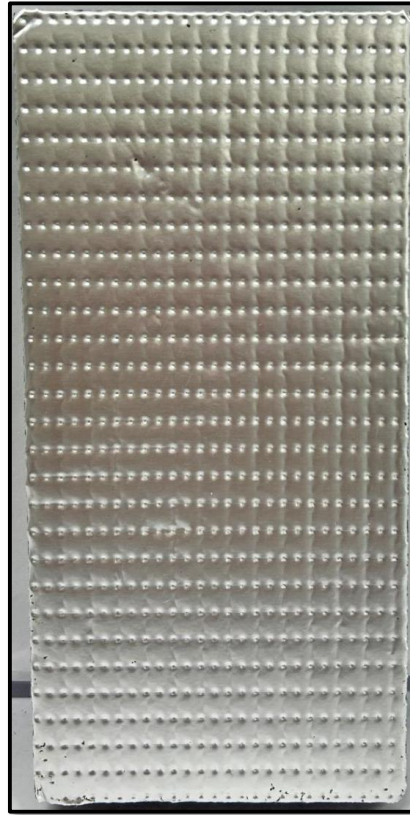


Figure 5. Before test

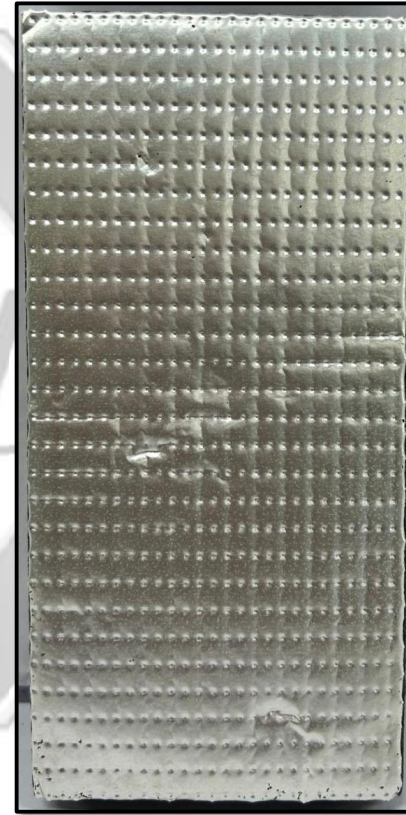


Figure 6. After exposure to 96 hours of
Fluorescent UV Light and Condensation Test

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Effective 27 March 2024

