

**Test Report No. 7191220072-MEC19-TYW**  
**dated 31 OCT 2019**

**Note:** This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.



PSB Singapore

Add value.  
Inspire trust.

**SUBJECT:**

Water Vapour Transmission of Polyolefin Insulation Material

**TESTED FOR:**

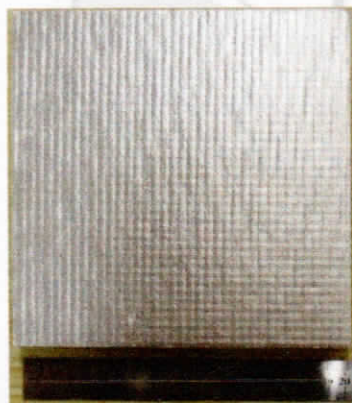
PT. Toilon Indonesia  
Jl. Raya Serang Km. 16.8 Desa  
Telaga, Cikupa  
Tangerang  
Indonesia

**ATTN:** Mr Yong Jeh

**SAMPLES DESCRIPTION:**

The following Polyolefin Insulation Material (as showed in Figure 1) was submitted by PT. Toilon Indonesia on 2 September 2019 for testing.

Brand Name / Model No. : Toilon / XPE 15  
Type of Product : Polyolefin Insulation  
Type of Material : Polyolefin Insulation  
Nominal Density : 25 kg/m<sup>3</sup> Foam only  
Nominal Thickness : 15 mm Foam only  
Adhesive : Self Adhesive Backing  
Fire Retardant : Fire Retardant Foam



Top view



Bottom view

Figure 1



Laboratory:  
TÜV SÜD PSB Pte. Ltd.  
No.1 Science Park Drive  
Singapore 118221

Phone : +65-6885 1333  
Fax : +65-6776 8670  
E-mail: enquiries@tuv-sud-psb.sg  
www.tuv-sud-psb.sg  
Co. Reg : 199002667R



**PT. Thermo Tech Solutions**  
**JAKARTA**

Regional Head Office:  
TÜV SÜD Asia Pacific Pte. Ltd.  
1 Science Park Drive, #02-01  
Singapore 118221  
TUV®

*Wab*

*Hu Guangxia*



**TEST METHOD (AS SPECIFIED AND AGREED BY THE CLIENT):**

ASTM E96 : 2016  
Standard Test Methods for Water Vapour Transmission of Materials

Method used : Desiccant method  
Test condition : 23 ± 1°C / 50 ± 2 % RH  
No. of determinations : 3

**DATE OF TEST:**

12/9/19 - 25/10/19

**TEST RESULTS:**

Characteristics	Unit	Results
Water Vapour Transmission, average	g/m <sup>2</sup> hr	1.1 x 10 <sup>-2</sup>
	grain/ft <sup>2</sup> hr	1.5 x 10 <sup>-2</sup>
Permeance, average	g/Pa m <sup>2</sup> s	2.09 x 10 <sup>-9</sup>
	Perm	3.7 x 10 <sup>-2</sup>

Ting Yeow Wah  
Higher Associate Engineer

Dr Hu Guangxia  
Senior Consultant  
Polymer Products  
Mechanical Centre



PT. Thermo Tech Solutions  
JAKARTA



**Test Report No. 7191220072-MEC19-TYW**  
**dated 31 OCT 2019**

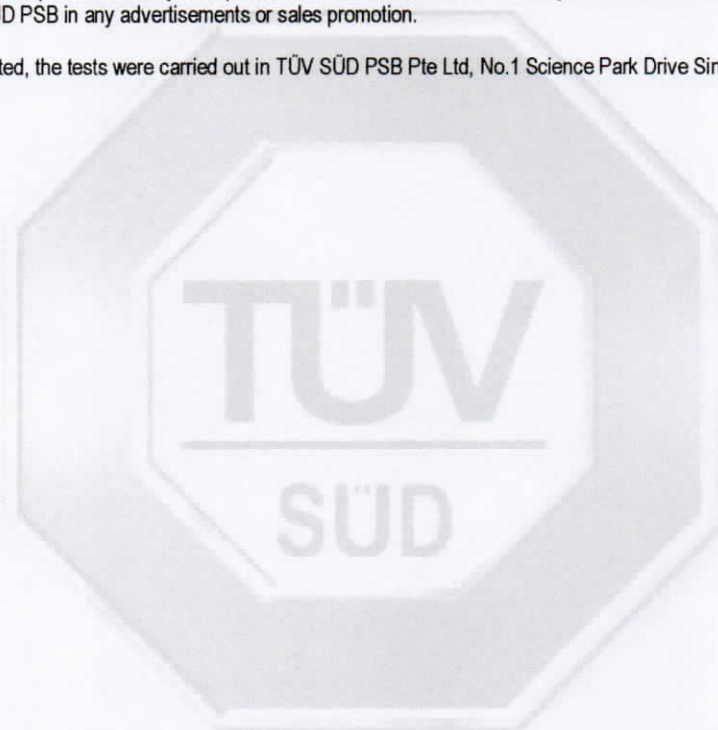


PSB Singapore

**Please note that this Report is issued under the following terms :**

1. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
2. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. TÜV SÜD PSB therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.
3. Nothing in this report shall be interpreted to mean that TÜV SÜD PSB has verified or ascertained any endorsement or marks from any other testing authority or bodies that may be found on that sample.
4. This report shall not be reproduced wholly or in parts and no reference shall be made by the Client to TÜV SÜD PSB or to the report or results furnished by TÜV SÜD PSB in any advertisements or sales promotion.
5. Unless otherwise stated, the tests were carried out in TÜV SÜD PSB Pte Ltd, No.1 Science Park Drive Singapore 118221.

July 2011



**PT. Thermo Tech Solutions**  
**JAKARTA**

