

Test Report No. 7191281147-MEC22/05-WYL
dated 19 Aug 2022



PSB Singapore

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SUBJECT:

Thermal Conductivity Testing of Fiber Cement Board.

TESTED FOR:

James Hardie Philippines Inc.
Brgy. San Isidro,
Cabuyao City, Laguna

Attn : Mr. Warren Paul Enciso

TEST METHODS:

1. ISO 8336:2017 Fibre-cement flat sheets – Product specification and tests methods
Section 5.6.7 Thermal Conductivity
2. ISO 13787:2003 Thermal insulation products for building equipment and industrial installations –
Determination of declared thermal conductivity
3. ISO 8301:1991/Amd.1:2010 Thermal insulation – Determination of steady-state thermal
resistance and related properties – Heat flow meter apparatus

DESCRIPTION OF SAMPLE:

The following item was received for testing.

| | | |
|-----------------------|---|---|
| Brand Name | : | HardieFlex® |
| Model | : | 4.5mm HardieFlex |
| Type of Material | : | Non-asbestos fiber-cement boards |
| Make up / Composition | : | Cement, Silica sand, Cellulose fiber, Water |
| Nominal Size | : | 300mm x 300mm x 4.5mm |
| Bulk Density | : | 1357.7kg/m ³ (after condition over 24hrs at nominal 23°C, 50%RH) |
| Date received | : | 09 Mar 2022 |

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TUV®



TEST RESULTS:

Table 1

| | Declared thermal conductivity | | |
|------------------------------|---|--------------|--------------|
| Actual mean temperature (°C) | 19.85 | 30.02 | 40.44 |
| Thermal conductivity (W/mK) | 0.053 | 0.053 | 0.056 |
| | Verified thermal conductivity | | |
| Actual mean temperature (°C) | 19.95 | 30.47 | 40.40 |
| Thermal conductivity (W/mK) | 0.053 | 0.053 | 0.054 |
| Remark: | The verified thermal conductivity result comply with the declared thermal conductivity result. (ISO 13787:2003) | | |

- Remarks:** 1) The mean temperatures at a nominal of 20°C, 30°C, and 40°C for each specimen
2) For each mean temperature, the delta temperature was a nominal of 15°C
3) The test was conducted on 06-07 Apr 2022.


Eddie Suwand
Testing Officer


Wang Yilin
Higher Associate Engineer
Building & Acoustics Group
Real Estate & Infrastructure
Mechanical

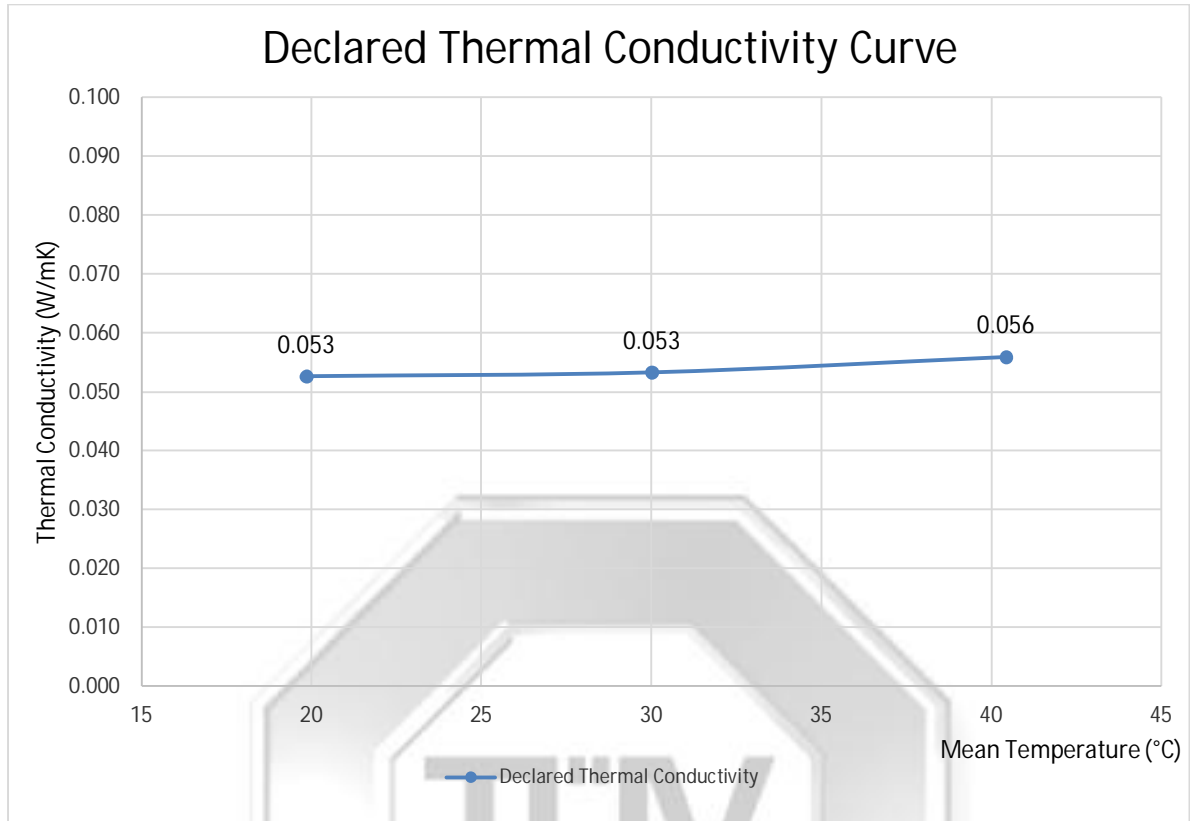


Figure 1: Declared Thermal Conductivity curve

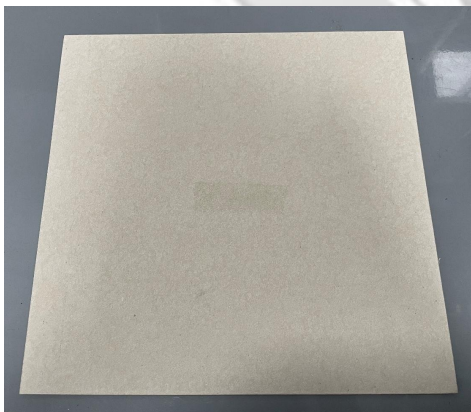


Photo 1: Sample as received, Side 1

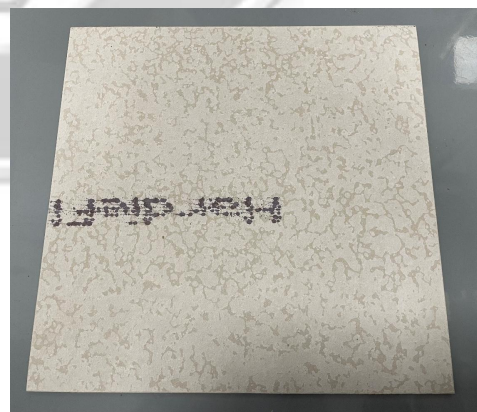


Photo 2: Sample as received, Side 2

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Effective 26 January 2021

