

TEST REPORT: 7191212708-CHM19-01-MA

Date: 17 JUN 2019

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Client's Ref:

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SUBJECT

Evaluate of "HardieFlex Fiber Cement Board" sample

CLIENT

James Hardie Philippines INC
Barangay, San Isidro
Cabuyao, Laguna
Philippines

Attn to: Ms Christine Cardama

DESCRIPTION OF SAMPLE

Five pieces of sample and one packet of sample labelled as followed were received on 02 May 2019

Sample Description	HardieFlex Fiber Cement Board
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DATE OF ANALYSIS

27 May 2019 – 17 Jun 2019



TÜV SÜD PSB

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METHOD OF TEST

The following emission tests were conducted according to ASTM D5116-17 – *Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials / Products*, as reference.

1. Emission Test

- 1) Total Volatile Organic Compounds (TVOC) Emission Rate

Emission Test Condition

- 1) Chamber Volume: about 1m³
- 2) Temperature: 23°C
- 3) Relative Humidity: 50%
- 4) Air Exchange Rate: n=1 (air change rate per hour in the chamber)
- 5) Chamber Loading Ratio: 0.4-1.0 m²/m³ (total exposed surface area of the test specimen divided by the net air volume of the emission test chamber)
- 6) Air Velocity: 0.1 m/s to 0.3 m/s (over the surface of the test specimen)

Note: Chamber Loading ratio for the tested sample: 0.4 m²/m³

RESULTS

Table 1. Total Volatile Organic Compounds (TVOC) Emission Rate Test Result

Sample	Test Result (After 24 hours)	Criteria for Singapore Green Label Category 41	Inferred Result
HardieFlex Fiber Cement Board	0.14 mg per m ² per hour	< 0.5 mg per m ² per hour	Pass

* TVOC is the sum of volatile organic compounds sampled on the sorbent tube between n-hexane (C6) and n-hexadecane (C16), and quantified by converting the total area of the chromatogram in that region to Toluene concentration equivalent.



MS MARIANA AHMAD
CHEMIST



DR XIAO ZHOU
PRODUCT MANAGER
MICROCONTAMINATION DIAGNOSIS
CHEMICAL & MATERIALS

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July 2011

