

Godfrey Hirst Australia Pty Ltd

TEST REPORT

REPORT NUMBER

180727009SHF-BP-2

ISSUE DATE

2018/8/15

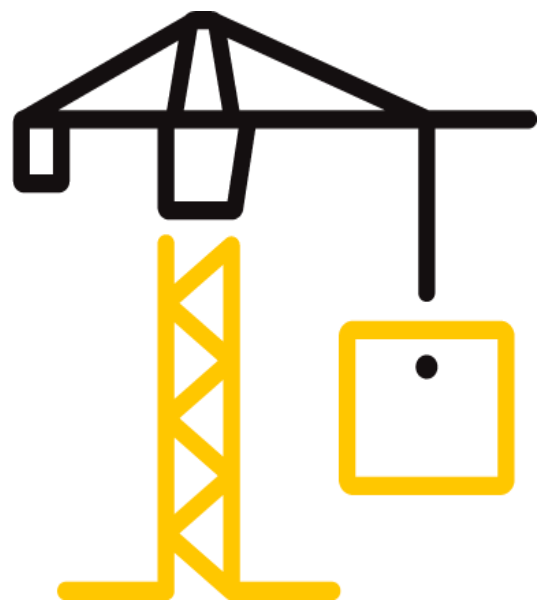
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DOCUMENT CONTROL NUMBER

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Test Report

Issue Date: 2018/8/15 Intertek Report No. 180727009SHF-BP-2

Applicant: Godfrey Hirst Australia Pty Ltd

Applicant Address: 7 Factories Road South Geelong, Victoria 3220, Australia

Attn: Mandy Chandley

SUBJECT: Performance testing
GH Hybrid 6.5mm / 0.5mm Wear Layer

Dear Sir,

This test report represents the results of our evaluation of the above referenced product(s) to the requirements contained in the following standards:

TEST METHODS AND STANDARDS
Refer to the next following Pages.

SAMPLE ID	MODEL	SPECIFICATION
S180727009SHF.008	/	/

SAMPLE RECEIVED: 2018/7/23
TESTED FROM: 2018/7/27 TO 2018/8/15

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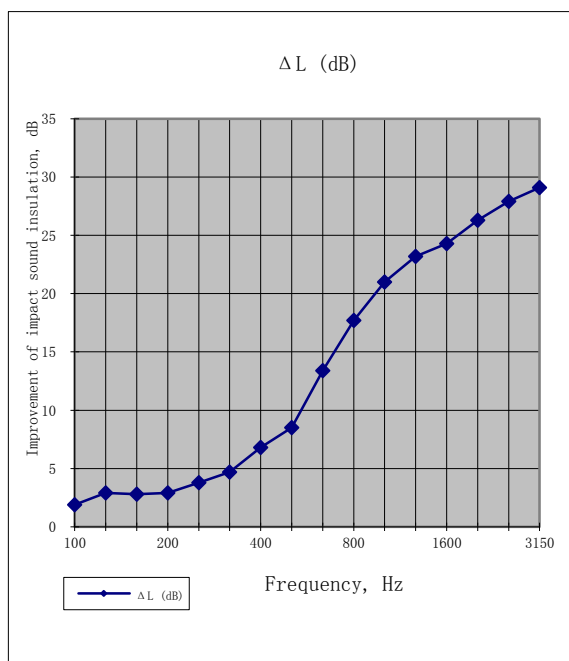
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Test Items, Method and Results:

Test method: ISO 10140-3:2010+A1-2015

Temperature: 34 °C Relative Humidity: 60 %
Volume of the source room: 77 m³ Volume of the receiving room: 112 m³
(Length × Width × Height) (5.7m × 4.9m × 4.0m)
Specimen area: 11.6 m² Static pressure: 100.4 kPa
Floor assembly: The system consisted of 150mm thick concrete floor and the GH Hybrid 6.5mm / 0.5mm Wear Layer (Backed with 1.5mm EVA) were placed on the concrete floor.

Frequency (Hz)	Ln (dB)	ΔL (dB)
100	59.7	1.9
125	60.8	2.9
160	61.0	2.8
200	59.1	2.9
250	61.7	3.8
315	62.0	4.7
400	63.1	6.8
500	62.0	8.5
630	61.0	13.4
800	62.6	17.7
1000	61.6	21.0
1250	61.8	23.2
1600	61.2	24.3
2000	60.9	26.3
2500	59.8	27.9
3150	59.0	29.1



Rating according to ISO 717-2:2013, the ΔL_w was shown below.

Weighted improvement of impact sound insulation	ΔL _w =	18 dB
Spectrum adaptation	C _Δ =	-9 dB

Note:

- These results are based on test made with an artificial source under laboratory conditions .
- Ln,0 = Normalized Sound Pressure Level for Bare standard concrete floor
ΔL = Reduction of impact sound pressure level after floor covering
ΔL_w = Weighted reduction of impact sound pressure level
C_Δ = Spectrum adaptation term
- The thickness, manufacturing technique and raw material among the samples are the same except for colour claimed by the applicant.

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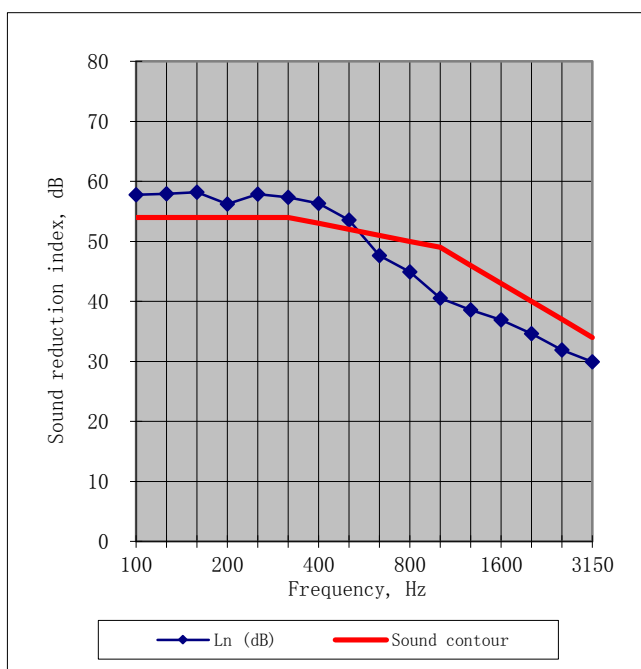
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Test Items, Method and Results:

Test method: ISO 10140-3:2010+A1-2015

Temperature: 34 °C Relative Humidity: 60 %
Volume of the source room: 77 m³ Volume of the receiving room: 112 m³
(Length × Width × Height) (5.7m × 4.9m × 4.0m)
Specimen area: 11.6 m² Static pressure: 100.4 kPa
Floor assembly: The system consisted of 150mm thick concrete floor and the GH Hybrid 6.5mm / 0.5mm Wear Layer (Backed with 1.5mm EVA) were placed on the concrete floor.

Frequency (Hz)	Ln (dB)
100	57.8
125	57.9
160	58.2
200	56.2
250	57.9
315	57.3
400	56.3
500	53.5
630	47.6
800	44.9
1000	40.6
1250	38.6
1600	36.9
2000	34.6
2500	31.9
3150	29.9



Rating according to ISO 717-2:2013, the $L_{n,w}$ was shown below.

Weighted normalized impact sound pressure level	$L_{n,w}$	52	dB
Spectrum adaptation	C_i	-1	dB

Note:

- These results are based on test made with an artificial source under laboratory conditions .
- L_n = Normalized Sound Pressure Level for Covering over Floor System
 $L_{n,w}$ = Weighted normalized impact sound pressure level
 C_i = Spectrum adaptation
- The thickness, manufacturing technique and raw material among the samples are the same except for colour claimed by the applicant.

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Test Items, Method and Results:

Test method: ASTM E492-09(2016)^{ε1}

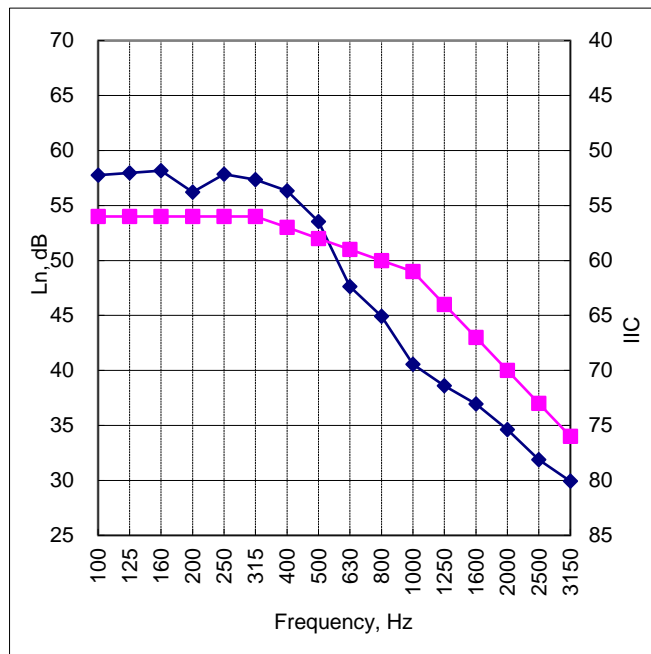
Temperature: 34 °C

Relative Humidity: 60 %

Specimen area: 11.6 m²

Floor assembly: The system consisted of 150mm thick concrete floor and the GH Hybrid 6.5mm / 0.5mm Wear Layer (Backed with 1.5mm EVA) were placed on the concrete floor.

Frequency (Hz)	Ln (dB)
100	58
125	58
160	58
200	56
250	58
315	57
400	56
500	54
630	48
800	45
1000	41
1250	39
1600	37
2000	35
2500	32
3150	30
IIC=	



Calculated Impact Insulation Class: IIC 58

Note:

1. Ln = Normalized Sound Pressure Level for Covering over Floor System
2. Classified IIC in accordance with ASTM E989-12, Standard Classification for Determination of Impact Insulation Class.
3. The IIC was for the whole floor assembly system.
4. The thickness, manufacturing technique and raw material among the samples are the same except for colour claimed by the applicant.

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Test Photos:



Test set up

Note:

The applicant claimed that the specimens were the same samples except color.

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APPENDIX: SAMPLE RECEIVED PHOTO



REPORT AUTHORIZED

When signed with physical or electronic signature, the contents of this report have been prepared and approved per Intertek's quality process in accordance with ISO 17025.


Name: Jodie Zhou Name: Evyn Cui
Title: Reviewer Title: Project Engineer

Revision:

NO.	DATE	CHANGES	AUTHOR	REVIEWER
180727009SHF-BP-2	2018/8/15	First issue	Evyn Cui	Jodie Zhou