

No. : SHIN2006034963CM

Date : Jul 09, 2020





CUSTOMER NAME:DECNO GROUP LIMITEDADDRESS:LONGQUAN ROAD, ZHANGQIU, JINAN, SHANDONG, CHINA

Sample Name : SPC FLOOR

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

\*\*\*\*\*\*\*\*

| Test Required      | : | Please see the next page(s)  |  |
|--------------------|---|--|--|
| SGS Ref. No.       | : | SHHL2006521605FL   |  |
| Ref. Standard      | : | Please see the next page(s)  |  |
| Date of Receipt    | : | Jun 16, 2020   |  |
| Testing Start Date | : | Jun 16, 2020   |  |
| Testing End Date   | : | Jul 09, 2020   |  |
| Test result(s)     | : | For further details, please refer to the following page(s)<br>(Unless otherwise stated the results shown in this test report refer only<br>the sample(s) tested) |  |

Signed for SGS-CSTC Standards Technical Service (Shanghai)Co., Ltd.

Em Hm

Erin Huang Authorized signatory



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Summary of Results:

| No. | Test Item                           | Test Method  | Result     | Conclusion |
|-----|-------------------------------------|--|------------|------------|
| 1   | Airborne sound<br>transmission loss | ASTM E90-09(2016) &<br>ASTM E413-16                | See result | /          |
| 2   | Impact sound transmission<br>loss   | ASTM E492-09(2016) <sup>ε1</sup> &<br>ASTM E989-18 | See result | /          |

Note:

Pass : Meet the requirements;

Fail : Does not meet the requirements;

/: Not Apply to the judgment.

Original sample photo(s):





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- 1. Test item: Airborne sound transmission loss
- I. Test Methods

ASTM E90-09(2016) Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements ASTM E413-16 Classification for Rating Sound Insulation

#### II. Sample Details

| Dimensions      | 1230mm×180mm×8mm (6mm SPC+2mm cushion layer) |  |
|-----------------|--|--|
| Surface density | About 12.3kg/m <sup>2</sup>                  |  |

#### III. Test condition

| Ambient temperature                | <b>26.5</b> ℃  | Relative humidity         | 59.4%             |
|------------------------------------|--|---------------------------|-------------------|
| The source room Volume             | 125m <sup>3</sup>  | The receiving room Volume | 100m <sup>3</sup> |
| Description of test<br>arrangement | Test area: 10m <sup>2</sup><br>The sample was assembled directly without any decoration on the<br>200mm thickness prefabricated floor. |                           |                   |

IV. Test result

Rating according to ASTM E413-16:

Sound transmission loss: STC=73dB

With the spectrum correction C (spectrum 1), the weighted sound insulation value is  $R_w+C=70dB$ . With the spectrum correction  $C_{tr}$  (spectrum 2), the weighted sound insulation value is  $R_w+C_{tr}=64dB$ .



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| Frequency                           | Sound      |  |
|-------------------------------------|------------|--|
|                                     | reduction  |  |
| 112                                 | index, dB  |  |
| 100                                 | 47.1       |  |
| 125                                 | 49.2       |  |
| 160                                 | 58.3       |  |
| 200                                 | 62.6       |  |
| 250                                 | 65.4       |  |
| 315                                 | 66.6       |  |
| 400                                 | 67.2       |  |
| 500                                 | 67.0       |  |
| 630                                 | 69.8       |  |
| 800                                 | 74.9       |  |
| 1000                                | 79.8       |  |
| 1250                                | 81.8       |  |
| 1600                                | 84.2       |  |
| 2000                                | 83.2       |  |
| 2500                                | 79.0       |  |
| 3150                                | 76.6       |  |
| 4000                                | 75.7       |  |
| 5000                                | 75.8       |  |
| STC                                 | 73         |  |
| R <sub>w</sub> (C;C <sub>tr</sub> ) | 72(-2; -8) |  |





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Test schematic diagram:



Note: The test was carried out by Center for Building Environment Test, Tsinghua University.



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- 2. Test item: Impact sound transmission loss
- I. Test Method

ASTM E492-09(2016)<sup>£1</sup> Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine ASTM E989-18 Standard Classification for Determination of Impact Insulation Class (IIC)

#### II. Sample Details

| Thickness       | 8(6+2) mm, attached with 2mm cushion layer |
|-----------------|--|
| Surface density | About 12.3kg/m <sup>2</sup>                |

#### III. Test condition

| Ambient temperature                | <b>26.5</b> ℃  | Relative humidity         | 59.4%             |
|------------------------------------|--|---------------------------|-------------------|
| The source room Volume             | 125m <sup>3</sup>  | The receiving room Volume | 100m <sup>3</sup> |
| Description of test<br>arrangement | Test area: 15m <sup>2</sup><br>The sample was assembled directly without any decoration on the<br>200mm thickness prefabricated floor. |                           |                   |

IV. Test result

Rating according to ASTM E989-18: Sound transmission loss: IIC = 75dB



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| Frequency | Impact sound |
|-----------|--------------|
|           | pressure     |
| 112       | level, dB    |
| 100       | 44.3         |
| 125       | 41.7         |
| 160       | 41.5         |
| 200       | 36.4         |
| 250       | 35.6         |
| 315       | 31.6         |
| 400       | 28.3         |
| 500       | 26.6         |
| 630       | 25.0         |
| 800       | 19.6         |
| 1000      | 11.1         |
| 1250      | 8.6          |
| 1600      | 8.2          |
| 2000      | 5.8          |
| 2500      | 7.2          |
| 3150      | 7.1          |
| 4000      | 7.1          |





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Test schematic diagram:



Note: The test was carried out by Center for Building Environment Test, Tsinghua University.

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