



The Brentano Suite
Solar house
915 High Road
London
N12 8QJ
Tel: 0208 445 8444
jura@specgroup.co.uk

ACOUSTIC TREATMENT

JULY 2024

5 CUMBERLAND TERRACE LONDON NW1 4HS

Contents

1. INTRODUCTION 3

2. CONSTRUCTION 3

 2.1 EXISTING CONSTRUCTION 3

 2.2 MEASUREMENTS OF THE EXISTING CONSTRUCTION 3

 2.3 REQUIRMENTS 3

 2.3 PROPOSED CONSTRUCTIONS 4

3. PROPOSAL 5

 3.1 FLOOR 5

 3.2 INTERNAL WALLS 5

4. PARTY WALL 6

5. CONCLUSIONS 7

1. INTRODUCTION

5 CUMBERLAND TERRACE is first floor flat that was converted out of the original terraces house in late 1950s and early 1960s. As a whole the terrace has been subdivided into flats and the houses have been connected to one another with openings in the party walls.

The separating floor is to be upgraded as per proposed structure to ensure the performance of the floor system is capable of achieving an appropriate standard of sound separation.

We also comment on the suitability of proposed internal wall constructions within the proposed refurbishment and appropriate acoustic treatment to the Party wall in the Kitchen area.

2. CONSTRUCTION

2.1 EXISTING CONSTRUCTION

We understand the existing separating floor construction comprises:

300mm Concrete slab with embedded UFH in a screed
Ceiling below

2.2 MEASUREMENTS OF THE EXISTING CONSTRUCTION

No Measurements were undertaken between neighbouring rooms.

2.3 REQUIRMENTS

The minimum and maximum requirements for sound insulation within converted properties (as outlined within Approved Document E) are also provided.

DnT,w + Ctr (dB) - Separating Floor Airborne Sound Insulation – Building reg minimum requirement 43 db

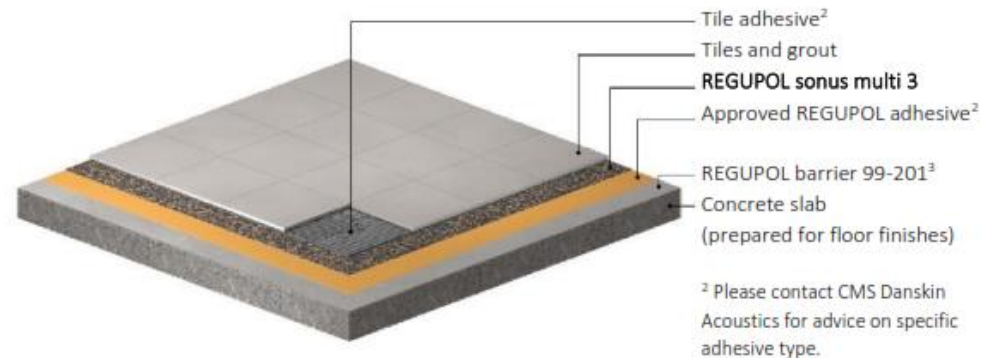
L'nT,w (dB) - – Separating Floor Impact Sound Transmission – Building reg maximum requirement 64 db

2.3 PROPOSED CONSTRUCTIONS

The construction of the proposed works consists of:

16/20 mm Parquet/Marble
1-5mm approved Adhesive
3mm Regupol Sonus Multi Impact Insulation
1mm Regupol adhesive
2-10 mm self leveling layer
3mm UFH mat system - electrical
3mm insulation board adhesive
Waterproofing layer

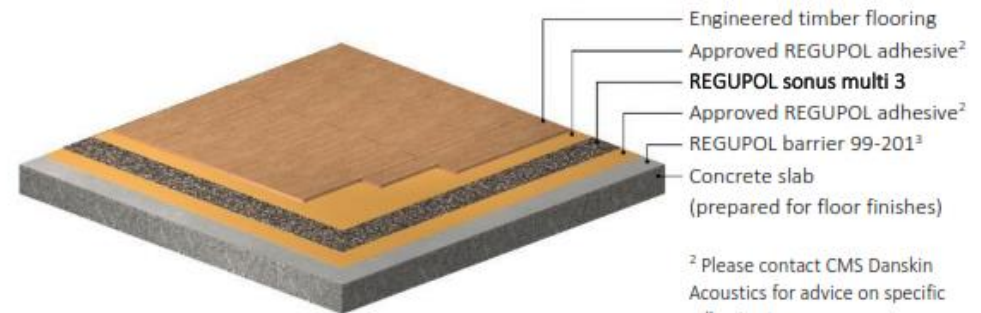
Tiled finishes



² Please contact CMS Danskin Acoustics for advice on specific adhesive type.

³ If moisture exceeds required levels

Floor assembly example Engineered wood



² Please contact CMS Danskin Acoustics for advice on specific adhesive type.

³ If moisture exceeds required levels

Floor assembly example

3. PROPOSAL

3.1 FLOOR

With regards to the construction details in Section 2.4, the proposed floor construction is expected to achieve the following sound insulation performances:

Table 7586/T5 – Predicted Performance after Works

| Performance parameter | Result |
|--|----------------------|
| Minimum Airborne Performance ($D_{nT,w} + C_{tr}$) | Better than existing |
| Maximum Impact Performance $L'_{nT,w}$ | Below 39 db |

The expected results for the proposed floor constructions are expected to exceed the Building Regulations requirements by more than 10dBA sound insulation. The proposed floor performance is also anticipated to meet or exceed the performance of the existing floor.

3.2 INTERNAL WALLS

According to Approved Document E (2003), newly created internal walls, which separate bathrooms/water closets and bedrooms from other parts of the flat, and internal floors should achieve a laboratory sound insulation rating value of RW 40dB (this requirement specifically excludes walls which separate a bedroom from the associated en-suite bathroom and walls containing a door). Please note the sound insulation of internal walls – unlike the sound insulation of separating walls – does not have to be on-site tested.

A single frame stud wall is proposed for internal walls with 2 layers of 15mm SoundBloc plasterboard. The construction detailed below is capable of achieving ~ Rw 50dB (10dB above criterion):

- 2No. layers of 15mm SoundBloc
- 100mm stud
- 2No. layers of 15mm SoundBloc

If the performance is required to further exceed the criteria, the construction detailed below is capable of achieving ~Rw 55dB (15 dB above criteria).

- 2No. layers of 15mm SoundBloc
- 100mm stud containing 25mm Mineral wool quilt
- 2No. layers of 15mm SoundBloc

4. PARTY WALL

There is a special acoustic treatment proposed on Party wall in the Kitchen is considered to protect noise from the kitchen associated activity. The primary concern is noise travelling through the structure.

Therefore, we propose that party wall acoustic treatment is installed.

- 2No. layers of 15mm SoundBloc
- GL8 mm stud system containing 25mm Mineral wool quilt
- 2No. layers of 15mm SoundBloc

If the performance is required to further exceed the criteria, acoustic WB weight – enhanced acoustic barrier, which can be used between 2 layers of plasterboard to help with airborne noise will help to achieve better performance.

- 2No. layers of 15mm SoundBloc
- GL8mm stud system containing 25mm Mineral wool quilt
- WB weight enhanced acoustic barrier
- 2No. layers of 15mm SoundBloc

Where access is required use appropriate access panel as per Appendix 1 or equivalent.

5. CONCLUSIONS

Advice has been given to ensure appropriate allowances have been made in relation to the proposed floor construction in order to meet the relevant performance standards and to also meet or exceed the performance of the existing floor.

Advice has been given with regards to the proposed internal wall constructions to ensure their performances exceed regulations and the current construction performances.

Recommendations have also been made to ensure the Party wall is suitably isolated from the surrounding structures.

We confirm that the proposed constructions are anticipated to exceed and improve sound insulation standards and also meet or exceed the performance of the existing floor.

APPENDIX 1

Acoustic access panel achieves an airborne sound reduction of 31 db

ACOUSTIC BEADED DOOR BEAD FRAME

UNI/CTBB/DB/HDG

23mm Bead Frame Surround (Picture Frame Available)

Budget Lock Key & Escutcheon Hole Protector in Board

Unihatch® Fully Reversible Door

Unihatch® Hinge System

56mm Narrow Frame System

Seam Welded Frame for a Rigid Construction

Fold Down Levelling Stops in Frame

Concealed Budget Lock in Door

High Density Gasket Seal Fitted into Frame

Our Acoustic Access Panels were independently tested by the Acoustic Testing Laboratory at The University of Salford and are for use in environments that require sound containment such as concert halls, schools, libraries and hotels.

If your sound engineer wishes to make acoustic calculations based on your requirements we can provide you with sound reduction index figures upon request.

Acoustic Rated
Superior airborne sound reduction

Maximum Protection
Fully Polyester Powder Coated

A 300x300mm Ceildoor Acoustic Access Panel achieves an airborne sound reduction value of 31dB under test conditions, but when installed into a 5x3m Rw50 rated ceiling or wall construction will achieve a combined value of Rw50.

| Composition | | Building Regulations | |
|----------------|--|----------------------|--|
| Frame | ▶ 1mm zintec welded construction | Part L | ▶ Thermal Resistance BS EN ISO 10077-1:2006 by Exova Warringtonapt |
| Door | ▶ 1mm zintec folded all sides for rigid door shell | Part E | ▶ Airborne Sound Insulation BS EN ISO 140-3:1995 / BS EN 717-1:1997 by University of Salford Acoustic Testing Lab |
| Coating | ▶ Fully Polyester Powder Coated RAL9010 Matt White Other colours available | | |
| Lock | ▶ Budget Lock as standard | | |
| Other | ▶ Acoustic Plasterboard, High Density Gasket Seals | | |
| Depth | ▶ Frame Depth: 56mm Door Depth: 32mm | | |

Installer must follow guidelines set by the wall or ceiling manufacturer to ensure the correct properties are achieved for the environment. All reports have been produced by independent UKAS accredited testing centres, further details available upon request.