



## NEW BUILD INTERNAL PARTITION WALLS & INTERNAL FLOORS

The Approved Document E 2003 Edition – Resistance to the passage of sound, introduced standards for internal walls and floors in dwelling houses, flats and rooms for residential purposes. By adopting the Rockwool SoundPro solutions you can meet and exceed the required ADE standards for internal walls and floors. No pre-completion site testing required.

### EXCEEDING APPROVED DOCUMENT E

### SUPERIOR SOLUTIONS FOR ENHANCED PARTITION PERFORMANCE

#### Solutions ③ - ⑩

These partition solutions have been laboratory tested to give a superior acoustic performance where a high level of airborne sound insulation is required over and above the minimum regulations of Approved Document E.



## INTERNAL PARTITION WALLS

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## INTERNAL FLOORS

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# INTERNAL PARTITION WALLS

## MEETING APPROVED DOCUMENT E (E2)

Minimum Required performance standard **Rw 40dB**

### Meeting Approved Document E (ADE)

The new Approved Document E (2003 edition) introduces, for the first time, performance criteria for internal walls and floors. This is based on laboratory rating (Rw) for which a minimum value for airborne sound insulation of Rw 40dB is required. ADE Section 5 internal wall type B gives examples of timber or metal stud partition constructions which should achieve this value.

## ADE SECTION 5 INTERNAL WALL TYPE B

### TIMBER STUD PARTITION

#### ADE Construction guidance specifications

- Min 75mm deep timber studs
- Min 25mm mineral wool between studs (25mm **Rockwool Acoustic Partition slab**)
- Single layer plasterboard with min mass per unit area 10kg/m<sup>2</sup> (eg 15mm standard wallboard)

### METAL STUD PARTITION

#### ADE Construction guidance specifications

- Min 45mm metal studs
- Min 25mm mineral wool between studs (as 25mm **Rockwool Acoustic Partition slab** or 50mm **Rockwool Flexi** in min. 60mm metal studs)
- Single layer plasterboard with min mass per unit area 10kg/m<sup>2</sup> (eg 15mm standard wallboard)

## ROCKWOOL SOUNDPRO SOLUTIONS INTERNAL WALL TYPE B

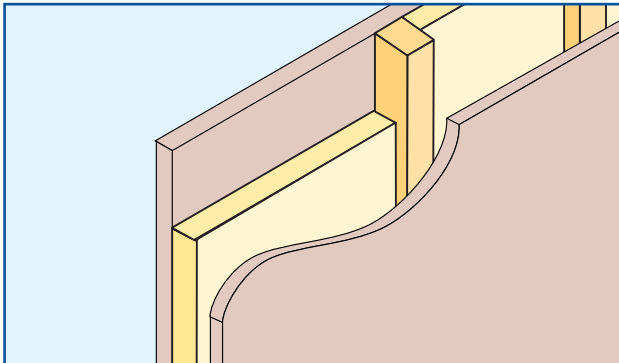
### SOLUTION 1

#### Timber stud wall

#### To meet part E2

**Rw 40dB** NBS Plus Clause P10:230

Test Report ref. PT 63112S RQ



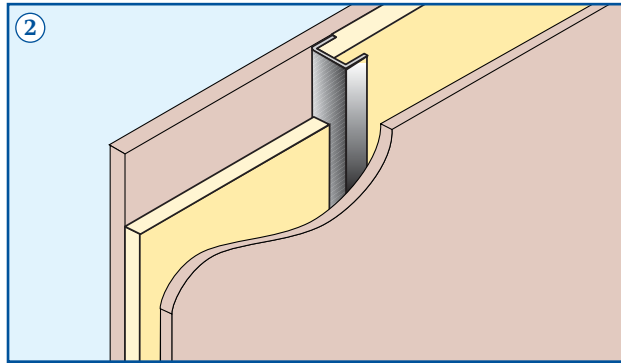
### SOLUTION 2

#### Metal stud wall

#### Exceeds part E2

**Rw 41dB** NBS Plus Clauses K10:115, K10:125

Test Report ref. L03 185



#### Rockwool SoundPro guidance specification

- 63 x 38 timber studs @ 600mm ctrs.
- 50mm **Rockwool Flexi** between studs
- Single layer of 12.5mm Lafarge dBcheck board mass per unit area 11kg/m<sup>2</sup> each side

#### Advantages of Rockwool SoundPro solution:

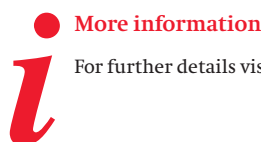
- Meets Part E min. sound performance level
- Only requires 63mm deep timber studs
- Reduced wall thickness

#### Rockwool SoundPro guidance specification

- 50mm lightweight metal studs @ 600mm ctrs.
- 25mm **Rockwool Acoustic Partition Slab** between studs
- Single layer of 12.5mm Lafarge standard wallboard mass per unit area 8kg/m<sup>2</sup> each side

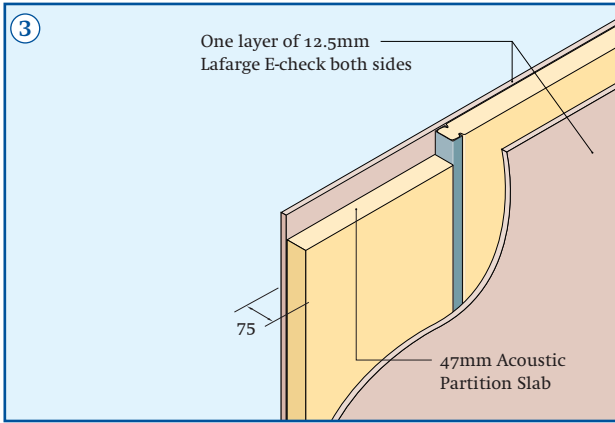
#### Advantages of Rockwool SoundPro solution:

- Exceeds Part E sound performance level
- Only requires 12.5mm standard wallboard
- Reduced partition weight



More information

For further details visit our website at [www.rockwool.co.uk](http://www.rockwool.co.uk)



### SOLUTION 3

**Rw 43dB**

Studs: 50mm Metal 'C' studs @ 600mm ctrs.

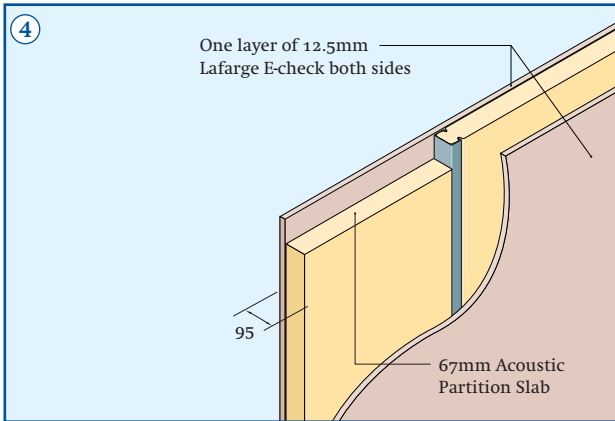
Facings: One layer of 12.5mm Lafarge E-check Wallboard (10 Kg/m<sup>2</sup>) both sides

Insulation: 47 mm **Rockwool Acoustic Partition Slab**

Report No: BTC 10192A

#### Technical Data

|                   |                        |
|-------------------|------------------------|
| Nominal weight    | 20.8 kg/m <sup>2</sup> |
| Maximum height    | 2.5 m                  |
| Nominal Thickness | 75 mm                  |
| Fire resistance   | 30 min                 |



### SOLUTION 4

**Rw 44dB**

Studs: 70mm Metal 'C' studs @ 600mm ctrs.

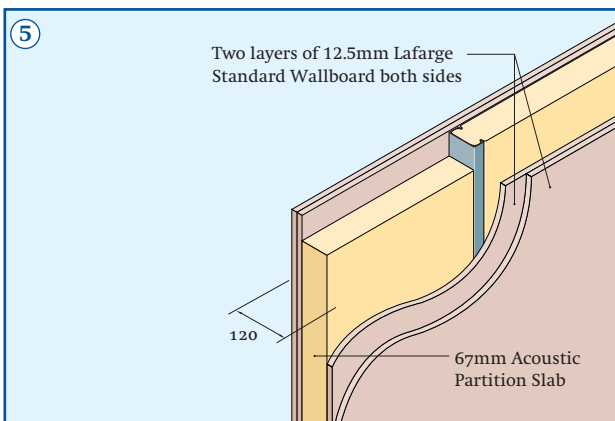
Facings: One layer of 12.5mm Lafarge E-check Wallboard (10 Kg/m<sup>2</sup>) both sides

Insulation: 67 mm **Rockwool Acoustic Partition Slab**

Report No: BTC 10190A

#### Technical Data

|                   |                        |
|-------------------|------------------------|
| Nominal weight    | 22.5 kg/m <sup>2</sup> |
| Maximum height    | 3.6 m                  |
| Nominal Thickness | 95 mm                  |
| Fire resistance   | 30 min                 |



### SOLUTION 5

**Rw 55dB**

Studs: 70mm Metal 'C' studs @ 600mm ctrs.

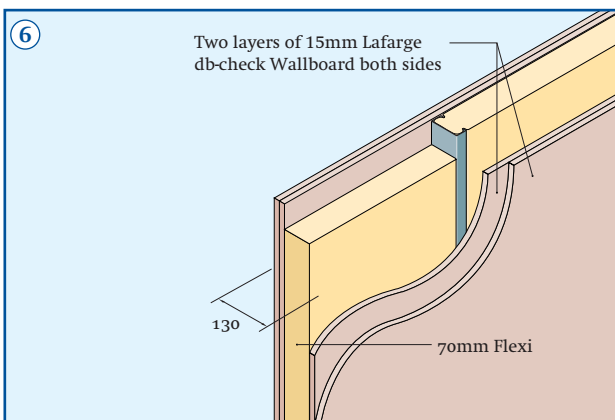
Facings: Two layers of 12.5mm Lafarge Standard Wallboard (total 16 Kg/m<sup>2</sup>) both sides

Insulation: 67 mm **Rockwool Acoustic Partition Slab**

Report No: BTC 10191A

#### Technical Data

|                   |                        |
|-------------------|------------------------|
| Nominal weight    | 34.5 kg/m <sup>2</sup> |
| Maximum height    | 4.6 m                  |
| Nominal Thickness | 120 mm                 |
| Fire resistance   | 60 min                 |



### SOLUTION 6

**Rw 57dB**

Studs: 70mm Metal 'C' studs @ 600mm ctrs.

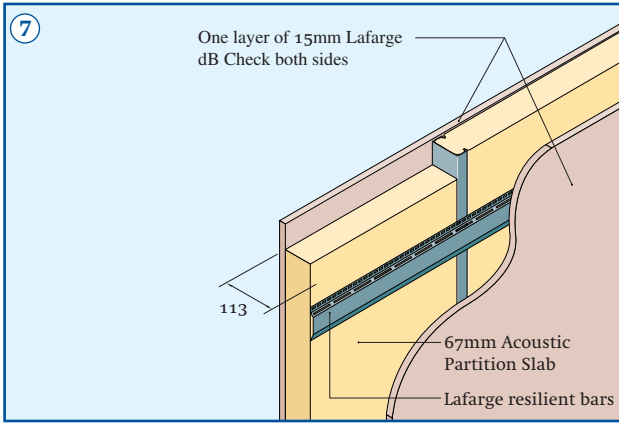
Facings: Two layers of 15mm Lafarge dB check Wallboard (26 Kg/m<sup>2</sup>) both sides

Insulation: 70 mm **Rockwool Flexi**

Based on Report No: BTC 10183A

#### Technical Data

|                   |                        |
|-------------------|------------------------|
| Nominal weight    | 54.5 kg/m <sup>2</sup> |
| Maximum height    | 4.6 m                  |
| Nominal Thickness | 130 mm                 |
| Fire resistance   | 90 min                 |



## SOLUTION 7

**Rw 54dB**

Studs: 70mm Metal 'C' studs @ 600mm ctrs.

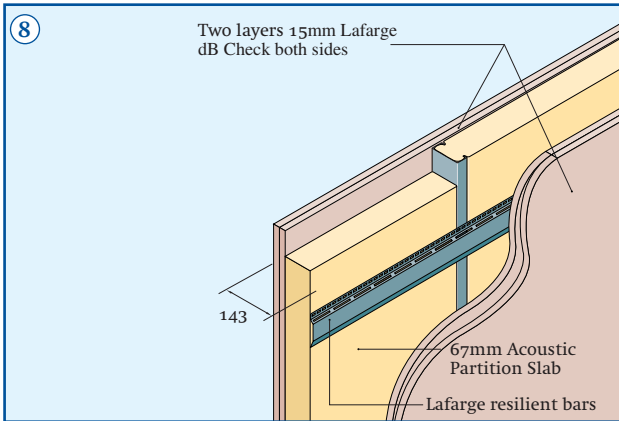
Facings: One layer of 15mm Lafarge dB Check (13 Kg/m<sup>2</sup>) one side.  
Other side one layer of 15mm Lafarge dB Check (13 Kg/m<sup>2</sup>) fixed to resilient bars (spaced at 600mm ctrs).

Insulation: 67mm **Rockwool Acoustic Partition Slab**

Report No: BTC 10189A

### Technical Data

|                   |                        |
|-------------------|------------------------|
| Nominal weight    | 28.5 kg/m <sup>2</sup> |
| Maximum height    | 3.6 m                  |
| Nominal Thickness | 113 mm                 |
| Fire resistance   | 60 min                 |



## SOLUTION 8

**Rw 63dB**

Studs: 70mm Metal 'C' studs @ 600mm ctrs.

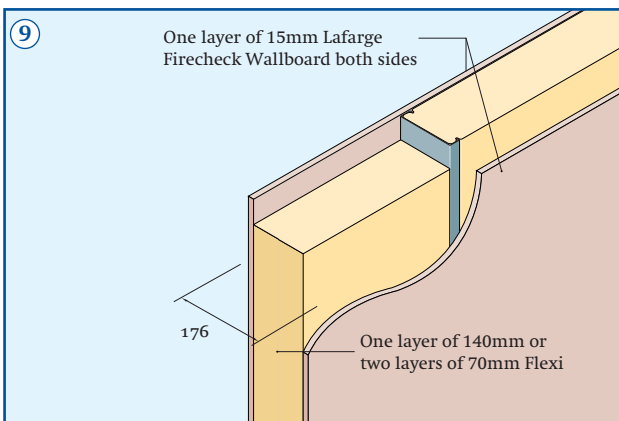
Facings: Two layers of 15mm Lafarge dB Check (total 26 Kg/m<sup>2</sup>) one side. Other side two layers of 15mm Lafarge dB Check (total 26 Kg/m<sup>2</sup>) fixed to resilient bars (spaced at 600mm ctrs).

Insulation: 67mm **Rockwool Acoustic Partition Slab**

Report No: BTC 10187A

### Technical Data

|                   |                        |
|-------------------|------------------------|
| Nominal weight    | 54.5 kg/m <sup>2</sup> |
| Maximum height    | 3.6 m                  |
| Nominal Thickness | 143 mm                 |
| Fire resistance   | 90 min                 |



## SOLUTION 9

**Rw 53dB**

Studs: 146mm Metal 'C' studs @ 600mm ctrs.

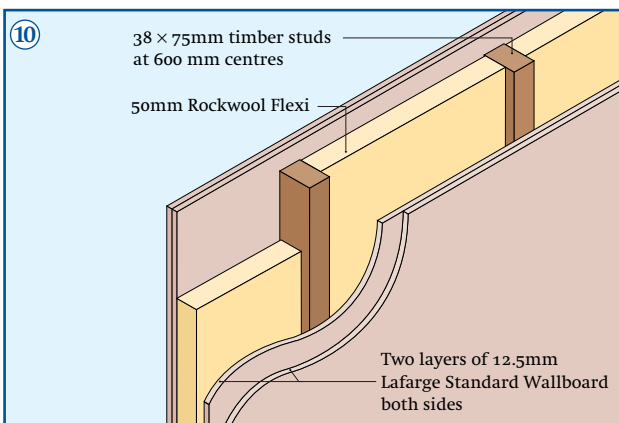
Facings: One layer of 15mm Lafarge Firecheck Wallboard (12 Kg/m<sup>2</sup>) both sides

Insulation: 1 x 140mm or 2 x 70mm **Rockwool Flexi** between studs

Report No: BTC 10193A

### Technical Data

|                   |                      |
|-------------------|----------------------|
| Nominal weight    | 43 kg/m <sup>2</sup> |
| Maximum height    | 6.5 m                |
| Nominal Thickness | 176 mm               |
| Fire resistance   | 60 min               |



## SOLUTION 10

**Rw 46dB**

Studs: 75x38mm timber studs @ 600mm ctrs.

Facings: Two layers of 12.5mm Lafarge Standard Wallboard (16 Kg/m<sup>2</sup>) both sides

Insulation: 50mm **Rockwool Flexi** between studs

Report No: L/2059/E/4

### Technical Data

|                   |                      |
|-------------------|----------------------|
| Nominal weight    | 47 kg/m <sup>2</sup> |
| Maximum height    | 3.0 m                |
| Nominal Thickness | 125 mm               |
| Fire resistance   | 60 min               |



# INTERNAL FLOORS

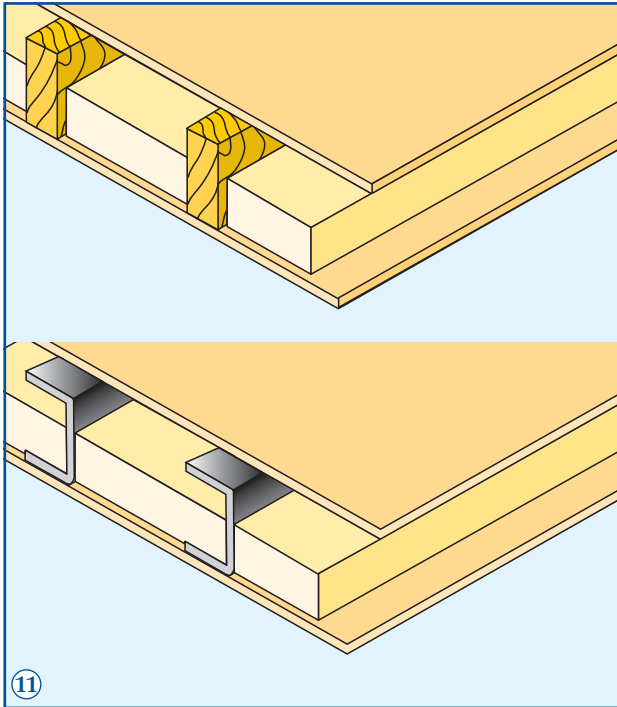
## MEETING APPROVED DOCUMENT E (E2)

Minimum Required performance standard **Rw 40dB**

### Meeting Approved Document E (ADE)

The new Approved Document E (2003 edition) introduces, for the first time, performance criteria for internal walls and floors. This is based on laboratory rating (Rw) for which a minimum value for airborne sound insulation of Rw 40dB is required. ADE Section 5 internal floor type C gives examples of internal timber or metal joist floor constructions which should achieve this value.

### ADE SECTION 5 INTERNAL FLOOR TYPE C

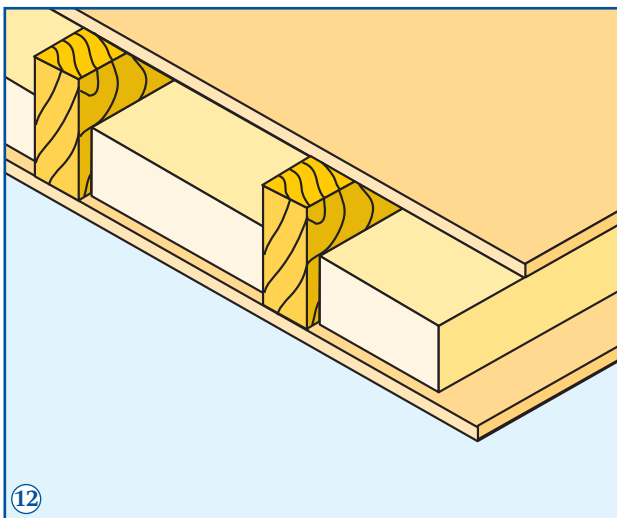


### SOLUTION 11 - ADE Construction guidance specifications for Internal Timber or metal joisted floors

#### Rw 40dB

- Timber or wood based floor of min. mass per unit area 15Kg/m<sup>2</sup> (eg 22mm chipboard)
- Timber or metal floor joists @ 400mm ctrs.
- Min. 100mm thick mineral wool between joists (Rockwool Flexi)
- Single layer plasterboard, min. mass per unit area 10Kg/m<sup>2</sup> (eg 15mm Standard wallboard)

### SOUNDPRO SOLUTION TIMBER JOIST INTERNAL FLOOR TYPE C



### SOLUTION 12

#### Timber joist Internal Floor

#### To meet part E2

#### Rw 40dB NBS Plus Clause P10:240

Test Report ref. L03 264 & 265

#### Rockwool SoundPro guidance specification

- Standard 18mm t&g flooring grade chipboard, mass per unit area 12.4 Kg/m<sup>2</sup>
- Timber joists @ 400mm ctrs.
- 100mm thick Rockwool Flexi between joists
- Single layer of Standard 12.5mm plasterboard ceiling, mass per unit area 8Kg/m<sup>2</sup>

#### Advantages of Rockwool SoundPro solution:

- Permits use of standard 12.5mm plasterboard ceiling
- Standard 18mm chipboard flooring
- Reduced floor weight
- Unlike Roll products, Rockwool Flexi can be friction fitted from below.



# **i** YOUR DIRECT LINE TO THE SOUND EXPERTS

SoundPro combines the products and unrivalled expertise of both **Rockwool** and its sister company, **Rockwool Rockfon**, to offer a one stop range of solutions to help you meet the stringent requirements set out in the approved Document E (2003 Edition).

So, to identify who best to contact for your particular requirements, please follow this flow chart.

It will help you quickly establish whether **Rockwool** or **Rockfon** should be your first point of contact. And ensure that we deliver you a fast and efficient service.

## robustdetails

