

# Knauf Technical Substantiation Report

Reference: ILR2-13

Performance: 63dB Rw



## Scope

This report outlines the test that has been carried out in order to determine the acoustic performance of the Knauf Isolator partition described below.

## System Build Up

2 x 15mm Knauf Soundshield Plus

Twin 50mm [0.55] Knauf 'I' Stud

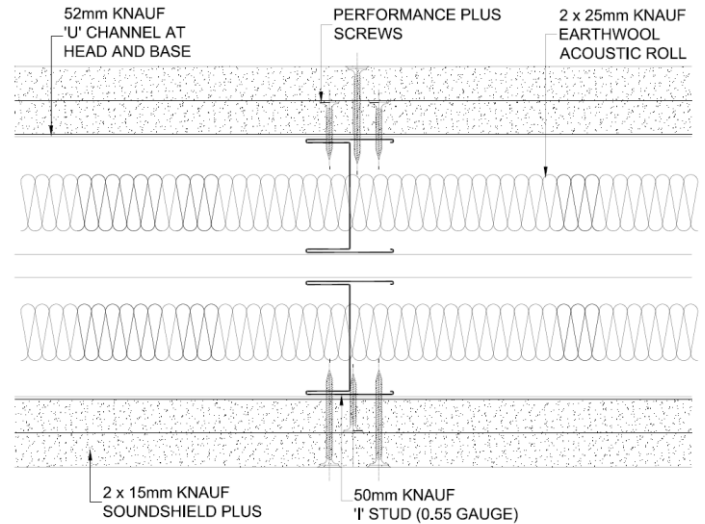
2 x 15mm Knauf Soundshield Plus

25mm Knauf Performance Plus Screws

45mm Knauf Performance Plus Screws

2 x 25mm Knauf Earthwool Acoustic Roll

170mm Overall Width



## System Description

A non-loadbearing Knauf partition system comprising of twin 50mm [0.55] Knauf 'I' Studs at 600mm centres faced either side with a double layer of 15mm Knauf Soundshield Plus, types A, D, F and I to EN 520:2004. Screw fixed at 300mm centres using 25mm & 45mm Knauf Performance Plus Screws incorporating 2 x 25mm Earthwool Acoustic Roll with in the cavity. All joints were staggered, taped and filled.

## Test Certificate No

243327 – L108-032

## Supporting Data

A sound insulation test was conducted on a double skin twin frame Knauf partition system in accordance with BS EN ISO 140-3:1995. The system comprised of a double layer of 15mm Knauf Soundshield (now known as Knauf Soundshield Plus), fixed at 300mm centres with 25mm & 45mm Knauf Performance Plus screws to each side of twin 50mm [0.55] Knauf 'I' Studs at 600mm centres supported by 52mm Knauf 'U' Channel at the head and base. Incorporating 2 x 25mm Acoustic Partition Roll (now known as Knauf Earthwool Acoustic Roll) within the cavity, board joints were taped and filled. The partition system achieved an acoustic rating of 63dB Rw in accordance with BS EN ISO 717-1:1997.

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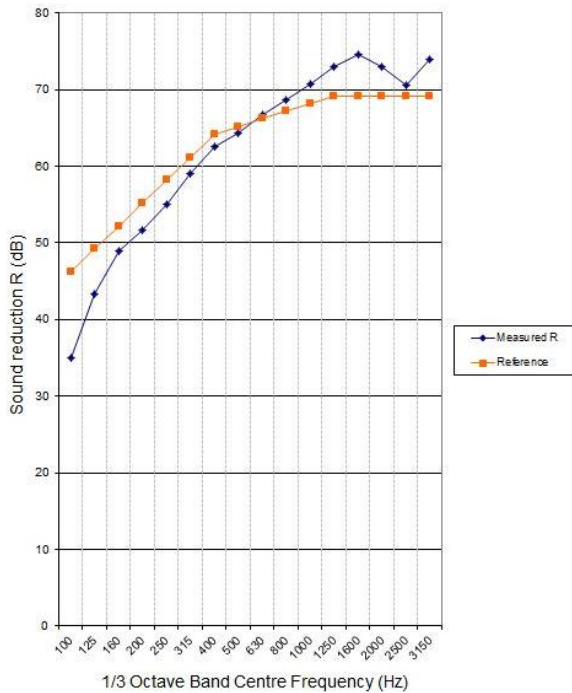
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Measured and reference curves



Frequency - 1/3rd Octave band (Hz)	Measured Ri (dB)
100	35
125	43.3
160	49
200	51.7
250	55
315	59
400	62.5
500	64.4
630	66.7
800	68.6
1000	70.8
1250	73
1600	74.6
2000	73
2500	70.6
3150	74

Summary table		
Rw (dB)	C	Ctr
63.0	-2	-9

## Conclusion

Therefore, the Knauf Isolator partition as described in the 'System Build Up' of this report, is suitable for installations where an acoustic rating of 63dB Rw is required, in accordance with BS EN ISO 717-1:1997.

## Prepared for and on behalf of Knauf by:

Technical Support Representative

15/08/18

Date

## Approved on behalf of Knauf Drywall by:

Fiona Misiri  
Technical Support Team Leader

Joseph Sargeantson  
Technical Services Director

15/08/18

Date

Note: The results only relate to the behaviour of the element of construction under the particular conditions of the test. They are not intended to be the sole criteria for assessing the potential acoustic performance of the final installed element in use, nor do they reflect the actual behaviour given site considerations. For Terms & Conditions please visit [www.knauf.co.uk](http://www.knauf.co.uk)

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