

Stravilink QRC^{*}

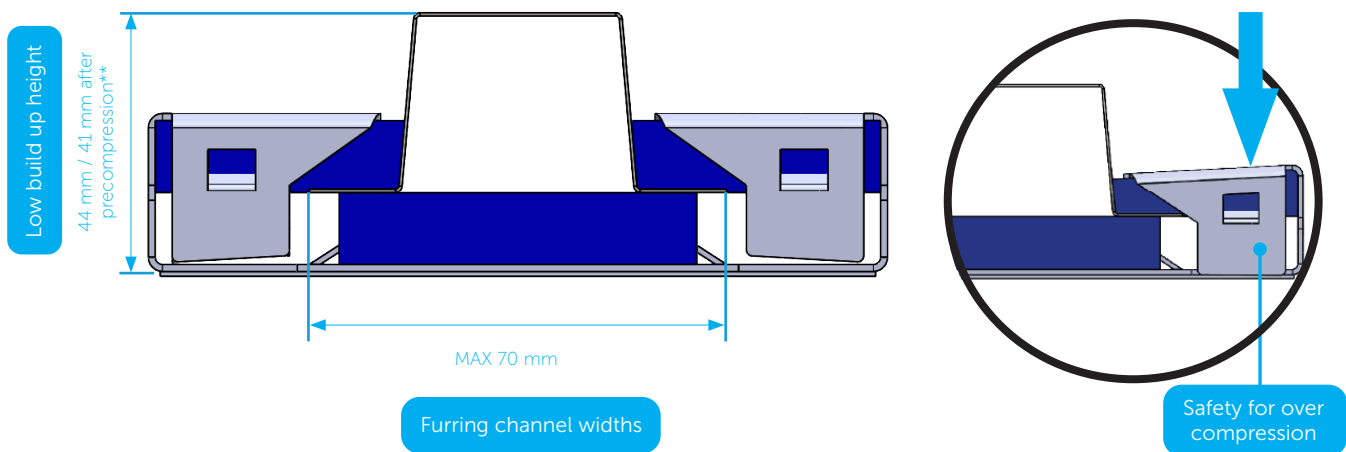
Datasheet

Stravilink QRC "Quiet Resilient Clip" is an **isolated wall and ceiling clip** designed to isolate a standard wall and ceiling channel therefore optimising sound insulation between horizontally and vertically arranged rooms.



FEATURES

- Suitable to fix to any substrate, stud or fixing type
- Ceiling hanger: supporting loads up to 24 kg with natural frequency of 10 Hz at design load
- Wall tie: assigned wall weight up to 27 kg per item
- Low build up height of 41 mm
- Quick installation thanks to flexible concept
- Accommodates furring channel widths from 60-70 mm
- Error free installation thanks to safety for over compression



PACKAGING

Model	Reference	Quantity per Box	Weight per Box [kg]	Dimension of Box [cm]
Stravilink QRC	000528	120	12.5	35 x 23 x 18

* This solution now replaces the previous Stravilink QRW.
** May accept different regional furring channel sizes.

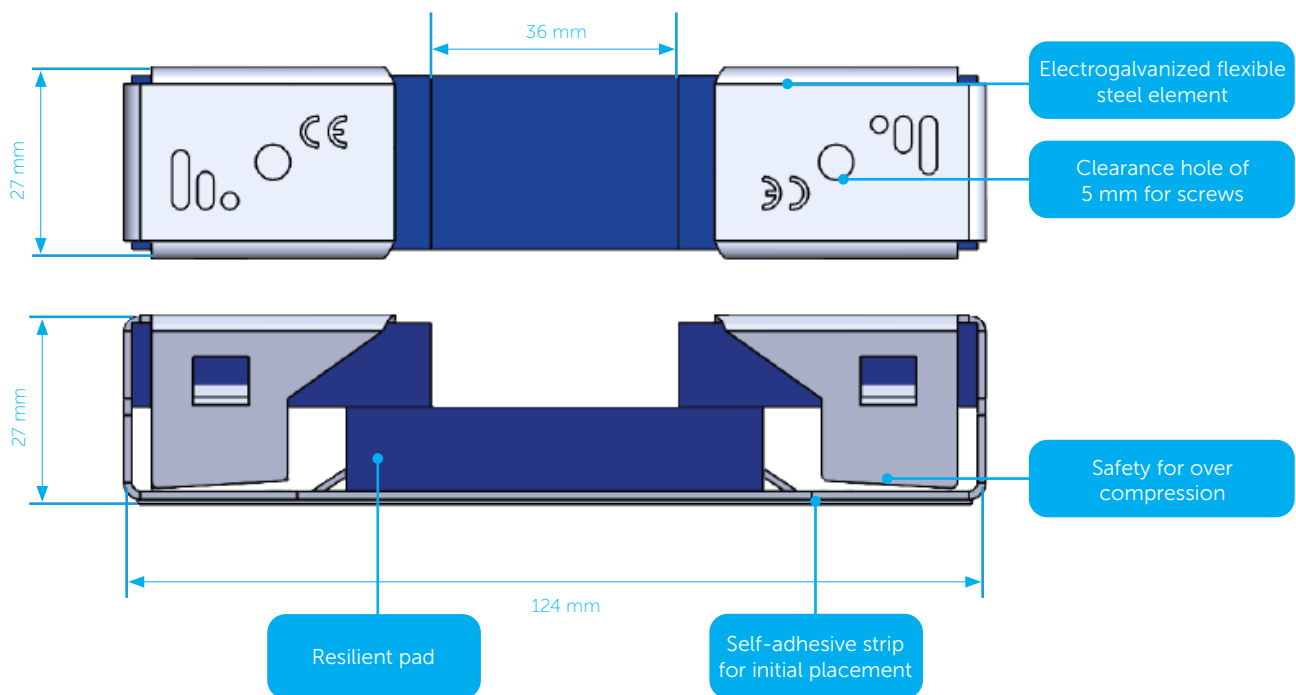


PHYSICAL & MECHANICAL PROPERTIES

Ceiling Hanger Properties					Wall Tie Properties			Elastomer Colour
Design Load		Natural Frequency at Design Load	Load Range		Max. Assigned Weight	Max. Rated Axial Load	Max. Deflection of Wall Support	
kg	N	Hz	kg	N	kg	N	mm	
20	200	10	7-24	70-240	Supported wall: 27 Unsupported wall: 22	270	6.7	Blue

Notes:

- Products are suited up to a C2 environment (atmosphere with little or no degree of pollution).
- The temperature range of use is between -30°C and 70°C.
- Maximum assigned weight = The maximum weight of the wall that is assigned to 1 wall tie, which will cause a dynamic axial load on the wall tie. See "Natural Frequency vs Assigned Weight" - graph for corresponding frequencies.
- Maximum rated axial load = (Temporary) Static axial load on the wall tie, e.g. windloads and impact loads. See "Axial Displacement vs Rated axial load" - graph for corresponding deflections.
- Resistance to vertical motion = Maximum allowed vertical displacement. The deflection of the wall support should not exceed the maximum allowed vertical displacement of the wall tie.



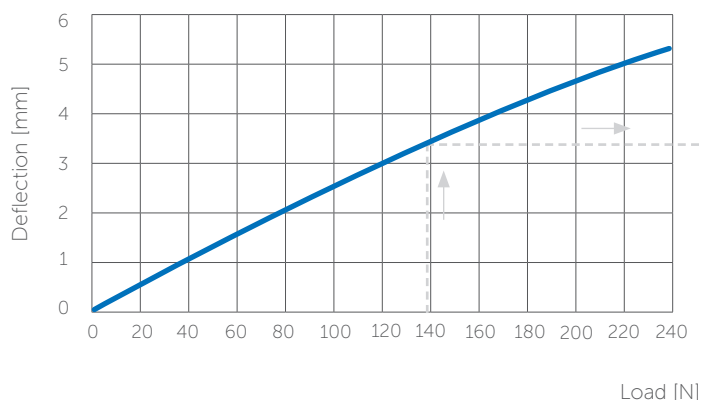
To assess what centering, fixing or load capacity related options Stravilink QRC has, the following information is needed:

- The weight and construction of the supported wall or ceiling - this will determine the type of the base isolation strip required
- The weights and support locations of any items supported off the wall or ceiling (such as televisions, etc.)

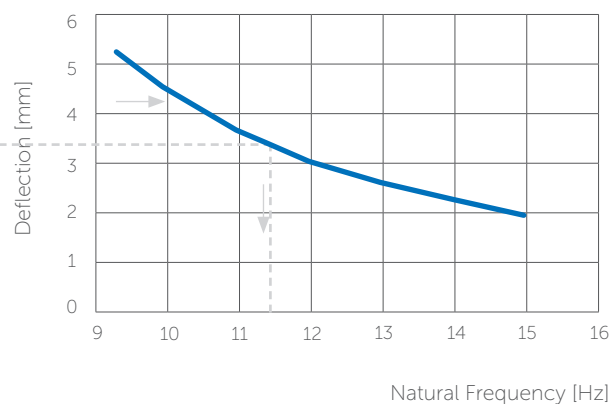


As Ceiling Hanger

Deflection as Function of Load



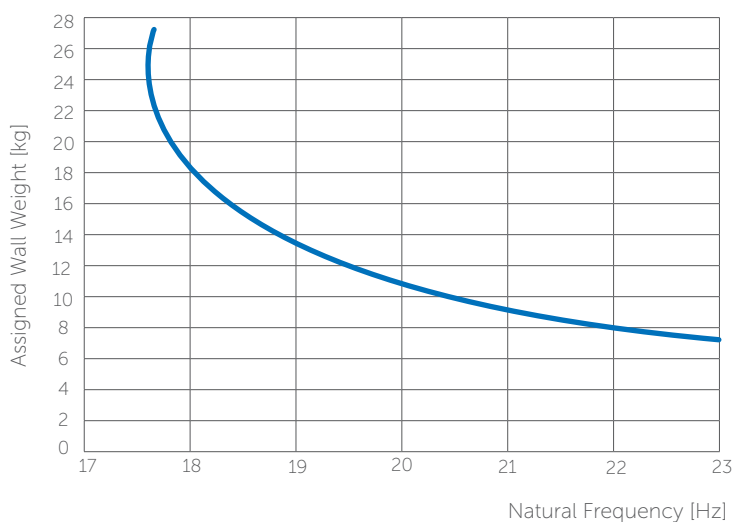
Relationship between Deflection and Natural Frequency



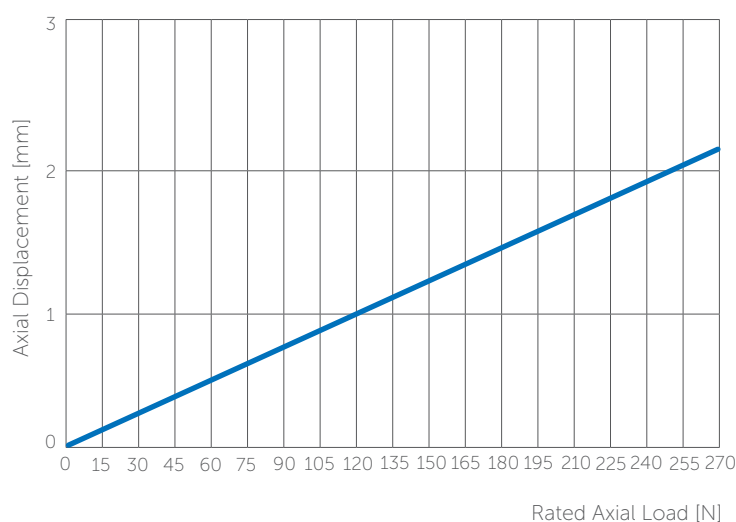
The natural frequency of a Stravilink QRC can be determined by its load. To start the calculation use the graph "deflection as function of load" this will provide the deflection at the specified load. Then moving horizontally to the right hand side plot "deflection as function of frequency" on which the corresponding natural frequency can be found. As an example, the natural frequency of the QRC loaded with 140N is determined. The corresponding deflection is 3.4 mm. The natural frequency of the QRC at 3.4 mm deflection is 11.5 Hz.

As Wall Ties

Natural Frequency under assigned Wall Weight

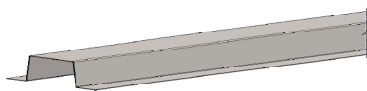


Rated Axial Load and Deflection



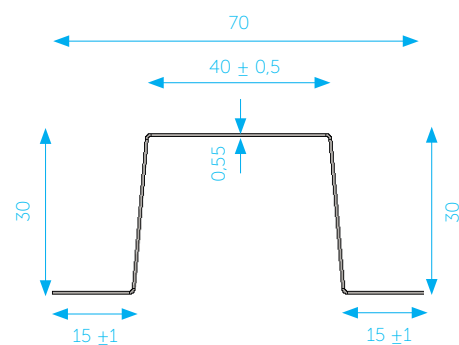


EXTRAS

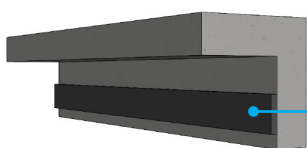


Furring channel

1. Furring channel of 3 m available
Material: DX51D + Z140
Weight: 1.44 kg per 3 m length



Note: All dimensions in millimeters (mm).



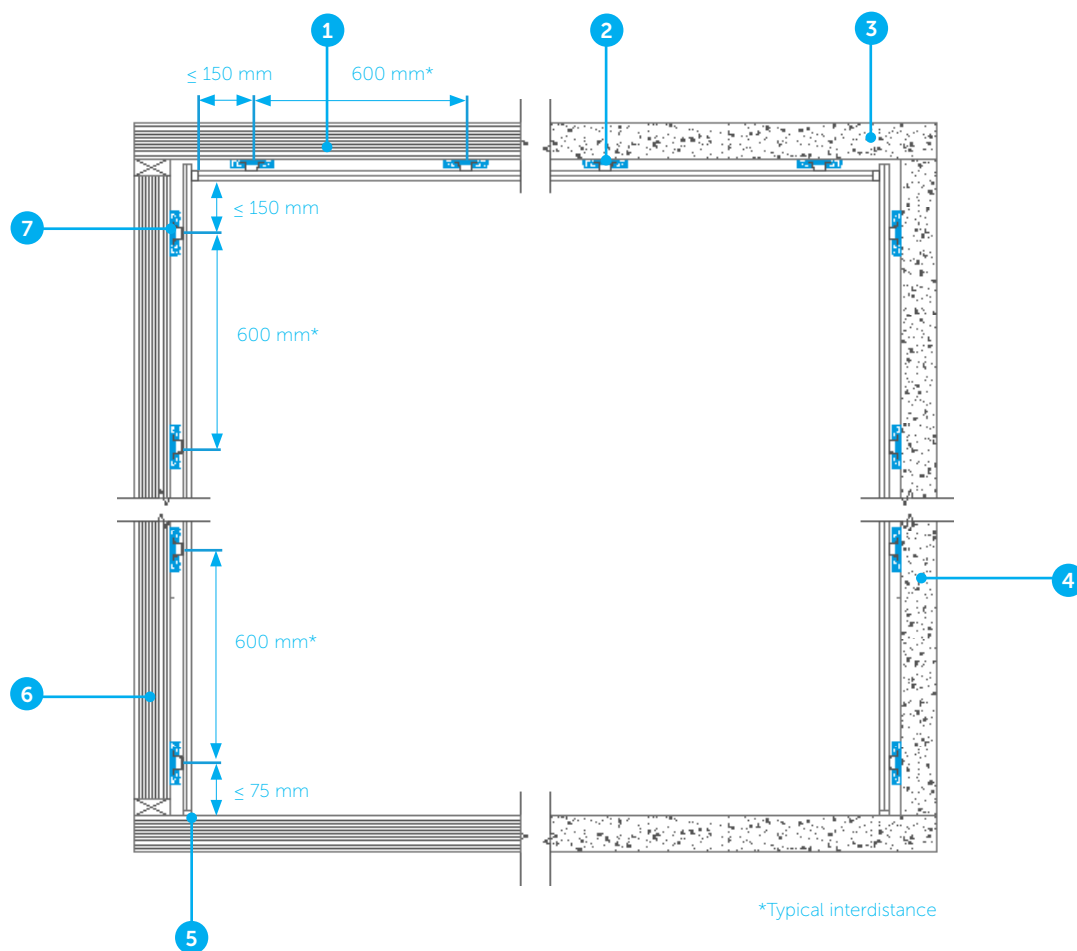
Perimeter Strip

1. Self-adhesive perimeter strip 10 mm thick to isolate the ceiling from the adjacent walls.
Note: Standard widths of 50 mm, 100 mm, and 150 mm are available in 10 lm rolls.



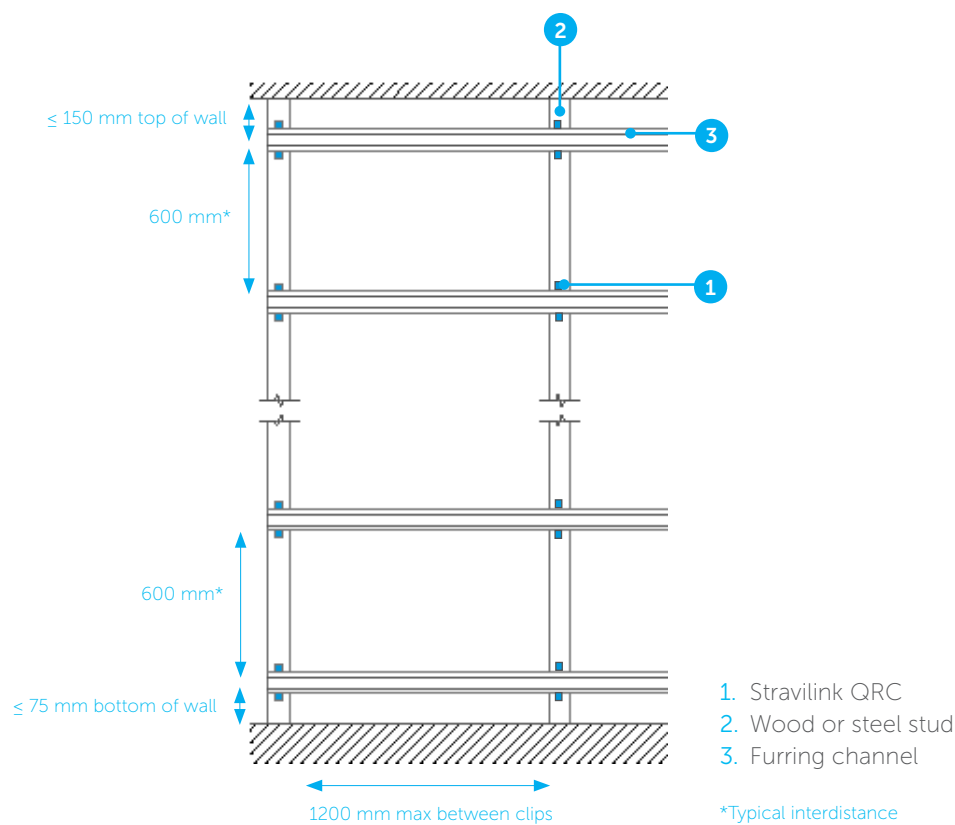
TYPICAL ASSEMBLIES

Typical wall and ceiling elevation with Stravilink QRC and furring channel:

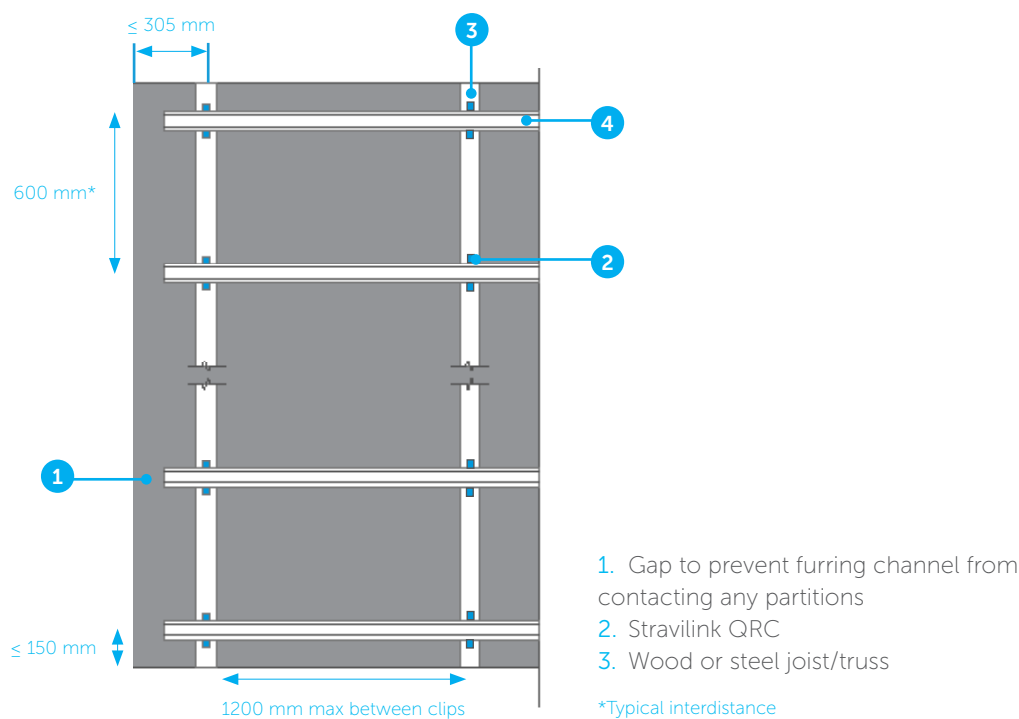


1. Wood ceiling
2. Stravilink QRC (ceiling configuration)
3. Concrete ceiling
4. Concrete wall
5. Non-hardening acoustical sealant or perimeter strip
6. Stud wall
7. Stravilink QRC (wall configuration)

Typical wall elevation with Stravilink QRC and furring channel:

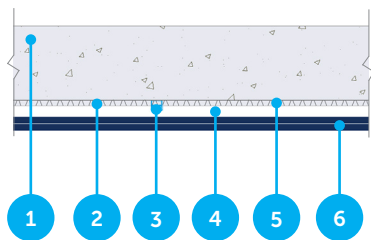


Typical ceiling layout with Stravilink QRC and furring channel:





Stravilink QRC on Ceiling Setup



Test Setup 1

1. 140 mm concrete base slab
2. 41 mm void
3. Stravilink QRC fixed directly to ceiling [on grid of 567.5 x 1200 mm]
4. 30 mm height furring channel
5. 40 mm mineral wool
6. 2x layers 12.5 mm gypsum boards

Setup

 $L_{n,w}(C_f)$ $\Delta L_w(C_f)$ $R_w(C,C_{tr})$

Assembly

54 (-4)

70 (-3, -10)

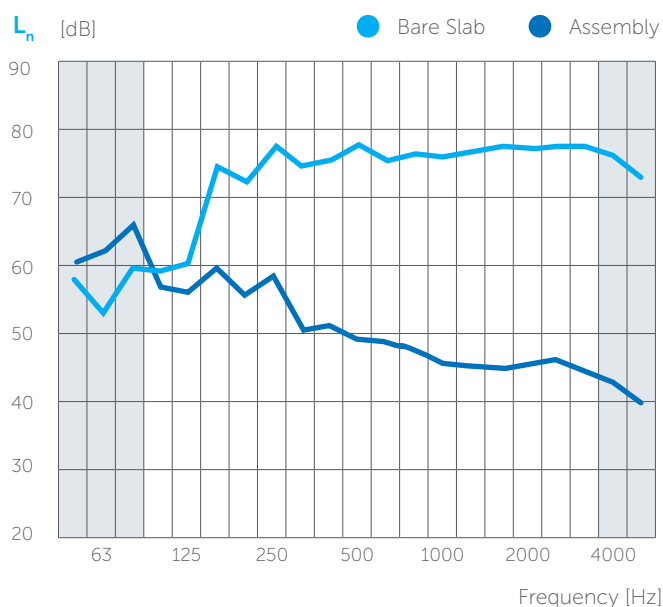
Bare Slab

83 (-10)

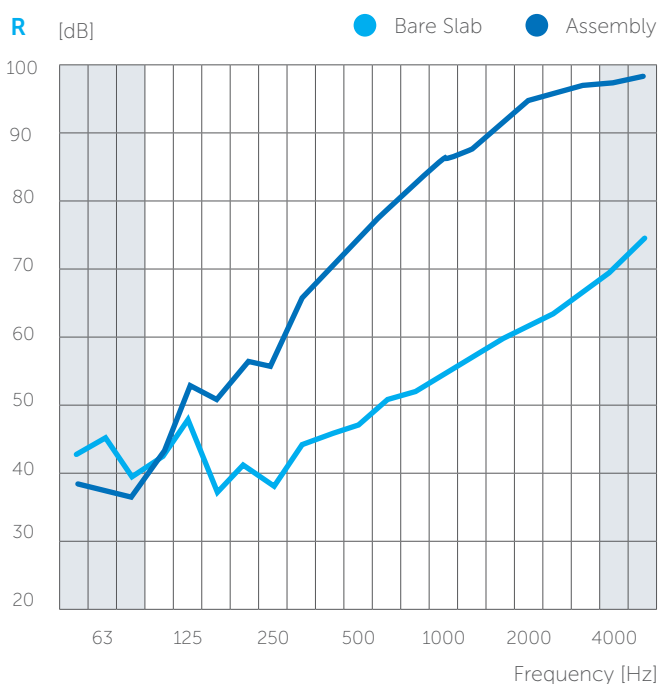
52 (-1,-5)

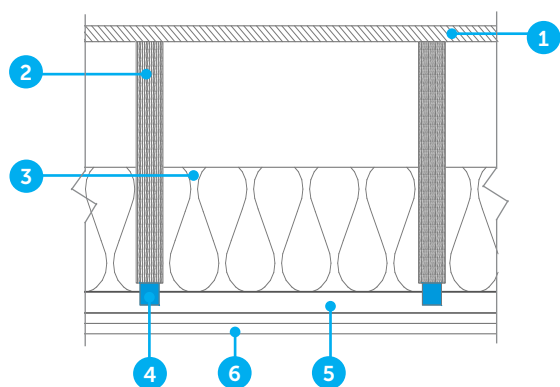
Laboratory report available upon request
Test report number TS-25-586-10 & TS-25-586-16

Frequency [Hz]	L_n [dB]	
	Bare Slab	Assembly
50	57,9	60,3
63	52,6	62
80	59,9	65,7
100	59	56,6
125	60,4	55,8
160	74,4	59,5
200	71,8	55,7
250	77,4	58,3
315	74,2	50,3
400	75,3	50,7
500	77,3	49
630	75,2	48,5
800	76,4	47,1
1000	75,8	45,4
1250	76,7	44,9
1600	77,2	44,8
2000	76,9	50,7
2500	77,3	45,8
3150	77	44,1
4000	76	43
5000	73	39,7



Frequency [Hz]	R [dB]	
	Bare Slab	Assembly
50	42,6	38,3
63	45,3	37,7
80	39,3	36,4
100	41,8	41,8
125	48,2	53,3
160	36,5	50,6
200	41,2	56,9
250	37,8	55,6
315	44,1	65,7
400	46,1	70,5
500	46,9	74,6
630	51,3	78,6
800	51,6	82,3
1000	54,7	86
1250	57,1	88,1
1600	59,9	92,1
2000	61,7	95,1
2500	64	96,1
3150	67	97,4
4000	70,6	97,4
5000	74,9	98,4





Test Setup 2

1. 19 mm plywood
2. 38 mm x 240 mm wood joists, spaced 406 mm on centers
3. 150 mm fiberglass batt insulation
4. Stravilink QRC
5. 22 mm metal furring channel
6. 2 layers 16 mm plasterboard

R_w

$L_{n,w}$

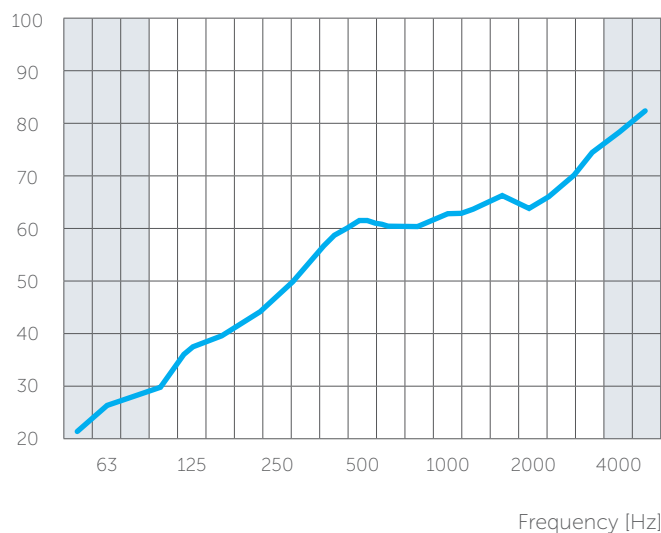
59 dB

58 dB

Laboratory report available upon request
Test Report A1-021983-9

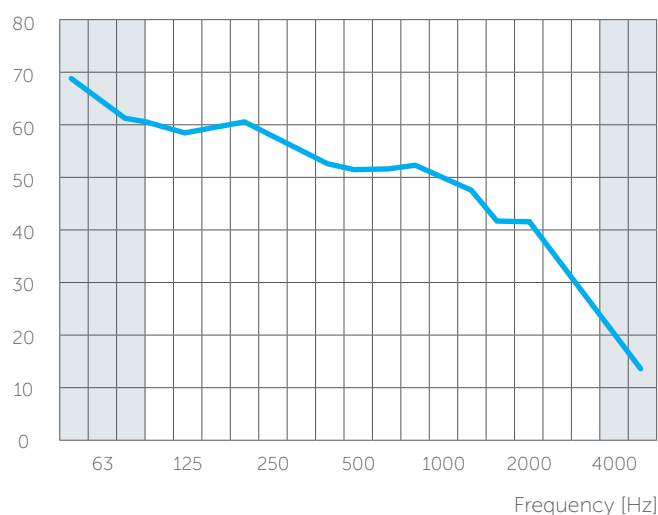
Frequency [Hz]	Airbone TL [dB]
50	21
63	26
80	28
100	30
125	37
160	39
200	42
250	46
315	52
400	58
500	61
630	60
800	60
1000	62
1250	63
1600	66
2000	63
2500	67
3150	73
4000	77
5000	82

TL [dB]



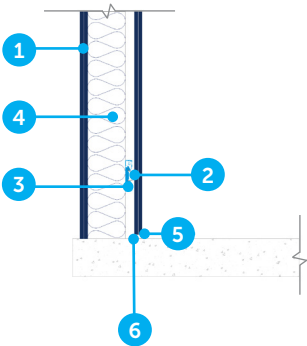
Frequency [Hz]	NISPL [dB]
50	75
63	70
80	67
100	66
125	64
160	65
200	66
250	64
315	61
400	58
500	57
630	57
800	58
1000	56
1250	53
1600	47
2000	47
2500	41
3150	32
4000	25
5000	18

NISPL [dB]



R_w single figure rating determined in accordance with ISO 717-1 based on ASTM E90-09 measurements.
 $L_{n,w}$ single figure rating determined in accordance with ISO 717-2 based on ASTM E492-22 measurements.

Stravilink QRC on Wall Setup



Test Setup

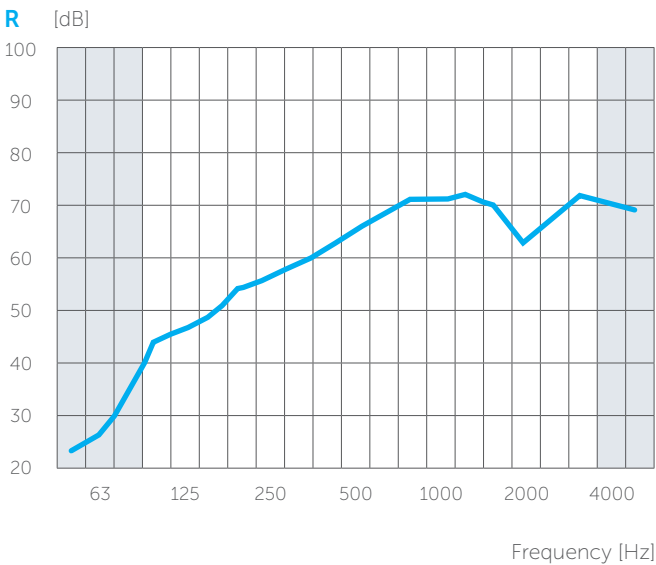
- 1. 2 x 15 mm plasterboard
- 2. 30 mm furring channel
- 3. Stravilink QRC
- 4. Metal stud wall of 90 mm with 50 mm insulation
- 5. Flexible sealant joint
- 6. Perimeter Strip

R_w

66 dB

Laboratory report available upon request
Test Report AC5576

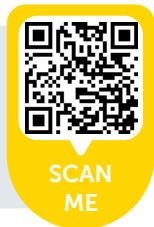
Frequency [Hz]	R [dB]
50	23
63	26
80	33
100	44
125	46
160	49
200	54
250	56
315	59
400	61
500	65
630	68
800	71
1000	71
1250	72
1600	70
2000	63
2500	67
3150	72
4000	71
5000	69



R_w single figure rating determined in accordance with ISO 717-1 based on ISO 10140-2 measurements.



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<https://stravi-db.com/>



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