

IMPACT ACOUSTIC®



tensile test

Ceiling Baffle – Bespoke

assumption

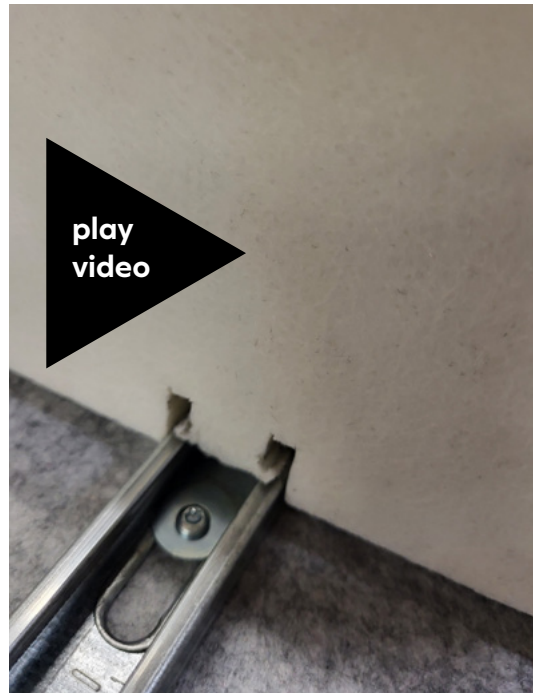
baffle length	2400mm
baffle height	300mm
material thickness	24mm
baffle weight	2.88kg
suspension points	2
tensile load per suspension points	1.44kg
amount of repetitions	19

test setup

A Hilti rail is screwed upside down onto a horizontal surface. An Archisonic 24mm piece with a notch for the Hilti rails is attached to a hanging scale. The scale is set to zero. The Archisonic piece is inserted into the Hilti rail. Now the Archisonic piece is slowly pulled out of the rail and the tensile force was noted shortly before the piece was disengaged.

test measurements

repetition	tensile force	time stamp
1.	10.23kg	0.57
2.	9.01kg	1.26
3.	7.88kg	1.48
4.	8.05kg	2.14
5.	7.30kg	2.43
6.	7.58kg	3.07
7.	7.05kg	3.50
8.	6.57kg	4.21
9.	6.63kg	4.53
10.	6.59kg	5.22
11.	6.07kg	5.42
12.	6.23kg	5.57
13.	5.95kg	6.30
14.	5.92kg	6.61
15.	5.78kg	7.37
16.	5.84kg	7.60
17.	5.79kg	8.28
18.	5.74kg	8.45
19.	5.77kg	8.60



conclusion

By tearing the baffle out of the mounting profile 19 times, the holding force was approximately halved. However, even after the 19 times, the holding force is still around four (4) times as high as effectively required. Therefore, a secure hold can be guaranteed even if the baffle is demounted for under 20 times.