Simulation of Sound Absorption Coefficient as per ISO 354
Computational model* of absorption measurement in reverberation rooms

Client   Kvadrat
Test Specimen   Curtains
                      Type: Flat

Arrangement: Flat hanging G100
          1 layer of textile, flat arrangement
          Distance to the wall: 100 mm

          Front textile: Mylla   from   Kvadrat

Simulated module build-up (from top to bottom):
          2.16 mm   Front textile
          100 mm   Air gap
                           Concrete surface

Simulation set up:
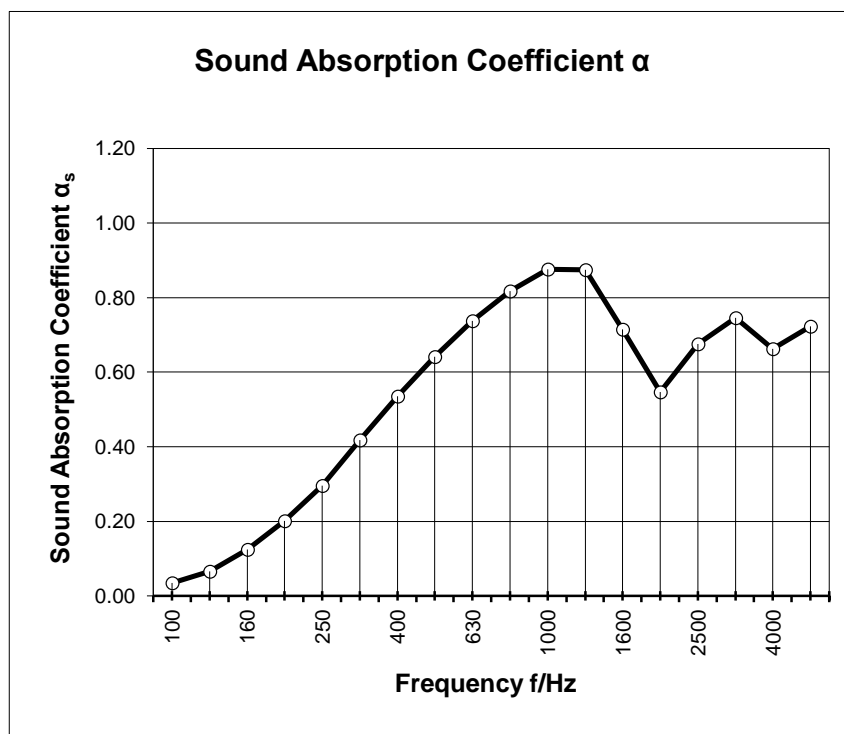   Flat arrangement, 100mm to the wall

          No surrounding, enclosing frame

          Simulation reproduces the standard ISO 354/11654
          measurement - random incidence environment

Date of simulation: 01-08-24

Frequency [Hz]	α_s 1/3 octave	α_p octave
100	0.03	
125	0.07	0.10
160	0.12	
200	0.20	
250	0.30	0.30
315	0.42	
400	0.54	
500	0.64	0.65
630	0.74	
800	0.82	
1000	0.88	0.85
1260	0.88	
1600	0.71	
2000	0.55	0.65
2500	0.68	
3160	0.75	
4000	0.66	0.70
5000	0.72	

Sound Absorption Coefficient α

*Method reproduces conditions, dimensions, build-up in a way results are comparable with measurements in reverberation chamber

α_s Sound absorption coefficient to ISO 354

α_p Practical sound absorption coefficient to ISO 11654

Rating according to ISO 11654:

NRC:	**0.60**
SAA:	**0.61**

Weighted Sound Absorption Coefficient α_w = 0.6   (M)
Sound absorption class: C

kvadrat acoustics

Test conducted by Kvadrat SoftCells
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