

Simulation of Sound Absorption Coefficient as per ISO 354

Computational model* of absorption measurement in reverberation rooms

Client Kvadrat A/S
Test Specimen Curtains
Type: Folded

Mounting type G-100, folded arrangement

1 layer of textile, 100% folded arrangement, 200% textile length
Distance to the wall: 100 mm

Front textile: Technicolour from Kvadrat

Simulated module build-up (from top to bottom):

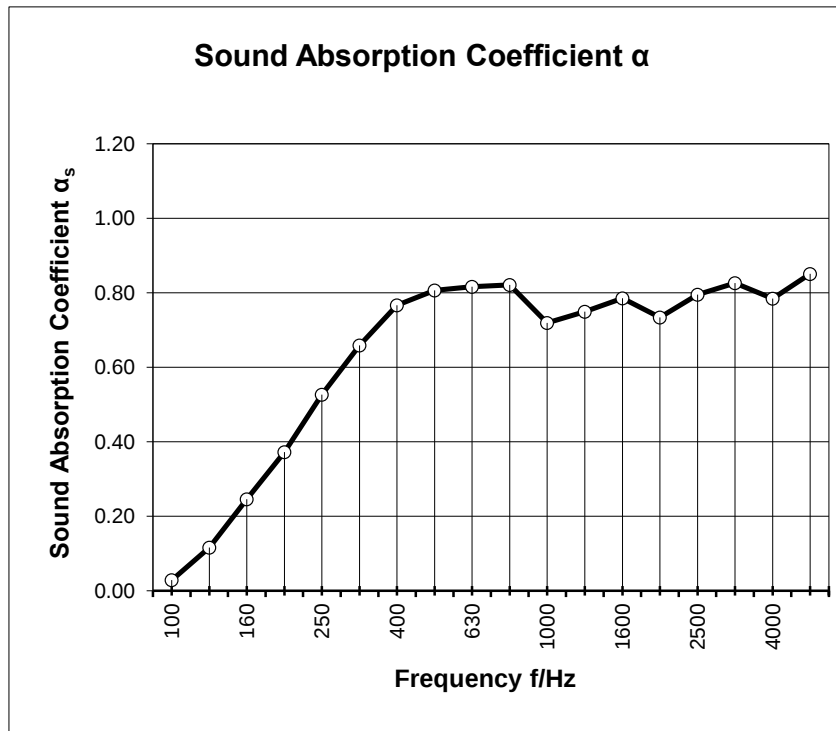
0.74 mm Front textile
100 mm Air gap
Concrete surface

Simulation set up:

100% Folded arrangement, 200% textile length, 100mm to the wall
No surrounding, enclosing frame
Simulation reproduces the standard ISO 354/11654 measurement - random incidence environment

Date of simulation: 09-01-26

Frequency [Hz]	as 1/3 octave	ap octave
100	0.03	0.15
125	0.12	
160	0.25	
200	0.37	0.50
250	0.53	
315	0.66	
400	0.77	
500	0.81	0.80
630	0.82	
800	0.82	
1000	0.72	0.75
1260	0.75	
1600	0.79	
2000	0.73	0.75
2500	0.79	
3160	0.83	
4000	0.78	0.80
5000	0.85	



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

as Sound absorption coefficient to ISO 354

ap Practical sound absorption coefficient to ISO 11654

Rating according to ISO 11654:

NRC:	0.70
SAA:	0.71

Weighted Sound Absorption Coefficient $\alpha_w = 0.75$

Sound absorption class: C