

# 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: Myr from Kvadrat

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

2.38 mm Front textile

100 mm Air gap

Concrete surface

## Simulation set up:

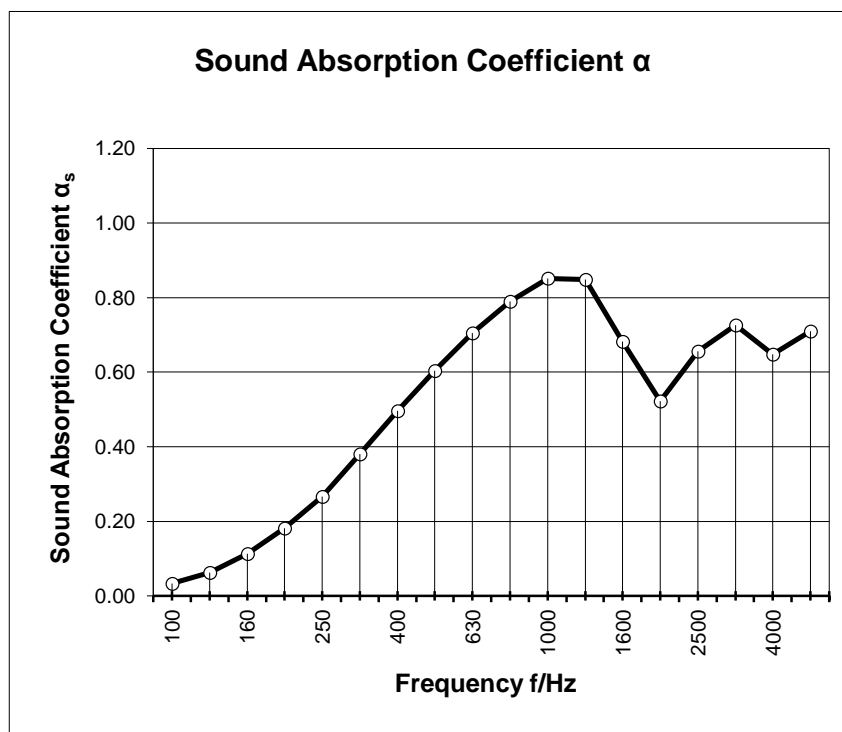
Flat arrangement, 100mm to the wall

No surrounding, enclosing frame

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

Date of simulation: 01-08-24

Frequency [Hz]	$\alpha_s$ 1/3 octave	$\alpha_p$ octave
100	0.03	0.05
125	0.06	
160	0.11	
200	0.18	0.30
250	0.27	
315	0.38	
400	0.50	0.60
500	0.60	
630	0.70	
800	0.79	0.85
1000	0.85	
1260	0.85	
1600	0.68	0.60
2000	0.52	
2500	0.66	
3160	0.73	0.70
4000	0.65	
5000	0.71	



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

$\alpha_s$  Sound absorption coefficient to ISO 354

$\alpha_p$  Practical sound absorption coefficient to ISO 11654

Rating according to ISO 11654:

<b>NRC:</b>	<b>0.60</b>
<b>SAA:</b>	<b>0.58</b>

**Weighted Sound Absorption Coefficient  $\alpha_w = 0.6$  (M)**

Sound absorption class: C