

Sound Absorption Coefficient ISO 354

Measurement of absorption in reverberation rooms

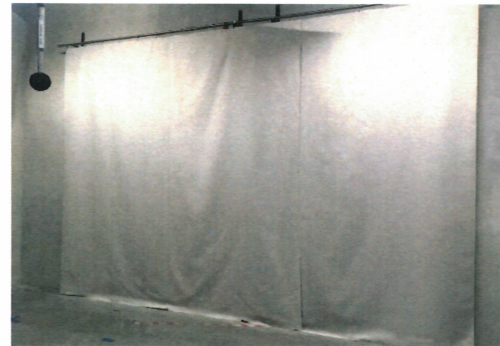
Client Kvadrat
Test Specimen Curtains
 Flat
Wall mounting - 100mm distance
 One layer of textile

Textile: Reflect from Kvadrat colour: 204
 100% Recycled PET

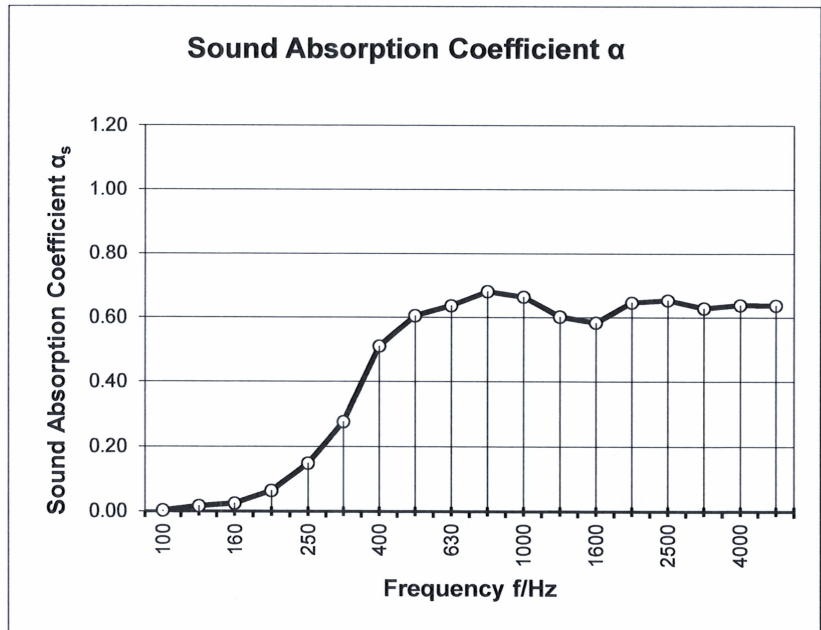
Test Build-Up (from top to bottom):
 1 mm Front textile
 100 mm Air gap
 Reflective wall

Mounting
 100mm distance to the wall
 Flat curtains 3 elements 1450x3000mm with approx.
 20mm overlap
 Total dimensions of the test object
 L x H = 4310mm x 3000mm

Room: Reverberation Room
 Volume: 156 m³
 Size: 12.93 m²
 Date of test 15-06-20



Frequency [Hz]	as 1/3 octave	ap octave
100	0.00	
125	0.02	0.00
160	0.02	
200	0.06	
250	0.15	0.15
315	0.28	
400	0.51	
500	0.61	0.60
630	0.64	
800	0.68	
1000	0.66	0.65
1260	0.60	
1600	0.58	
2000	0.65	0.65
2500	0.65	
3160	0.63	
4000	0.64	0.65
5000	0.64	



as Sound absorption coefficient to ISO 354
 ap Practical sound absorption coefficient to ISO 11654

NRC:	0.50
SAA:	0.51

Rating according to ISO 11654:

Weighted Sound Absorption Coefficient $\alpha_w = 0.45$ (H)

Sound absorption class:D

Sound Absorption Coefficient ISO 354

Measurement of absorption in reverberation rooms

Client Kvadrat
Test Specimen Curtains
 Folded 100%
Wall mounting with 100mm distance
 One layer of textile

Textile: Reflect from Kvadrat colour: 204
 100% Recycled PET

Test Build-Up (from top to bottom):
 1 mm Front textile
 100 mm Air gap
 Reflective wall

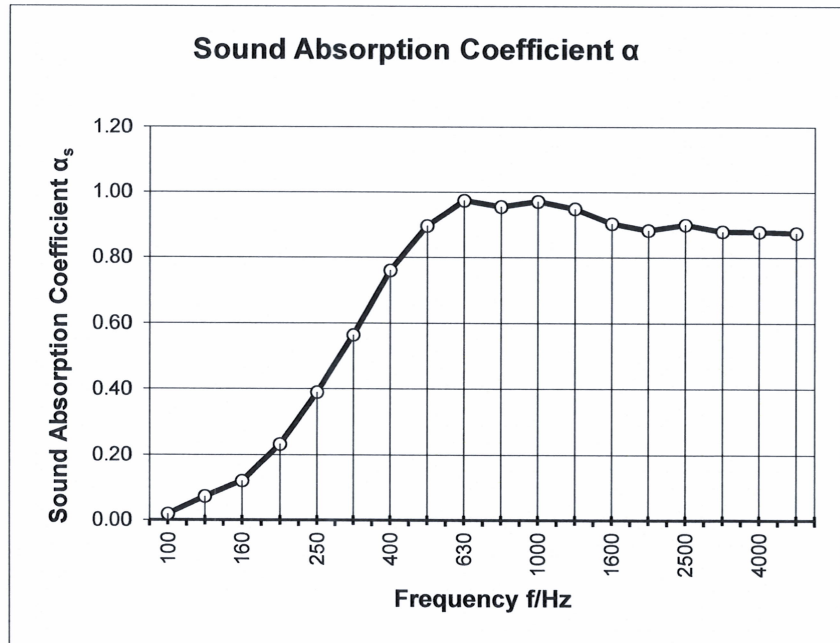
Mounting

100mm distance to the wall
 1 layer of curtains, 5 elements 1450x3000mm with approx.
 20mm overlap, 100% folded, 200% textile length
 Total dimensions of the test object
 L x H = 3580mm x 3000mm

Room: Reverberation Room
 Volume: 156 m³
 Size: 10.74 m²
 Date of test 15-06-20



Frequency [Hz]	α_s 1/3 octave	α_p octave
100	0.02	
125	0.07	0.05
160	0.12	
200	0.23	
250	0.39	0.40
315	0.56	
400	0.76	
500	0.90	0.90
630	0.97	
800	0.96	
1000	0.97	0.95
1260	0.95	
1600	0.90	
2000	0.88	0.90
2500	0.90	
3160	0.88	
4000	0.88	0.90
5000	0.87	



α_s Sound absorption coefficient to ISO 354

α_p Practical sound absorption coefficient to ISO 11654

NRC:	0.80
SAA:	0.78

Rating according to ISO 11654:

Weighted Sound Absorption Coefficient $\alpha_w = 0.7$ (MH)

Sound absorption class:C

EN 29053 - Determination of airflow resistance

Direct airflow method - method A

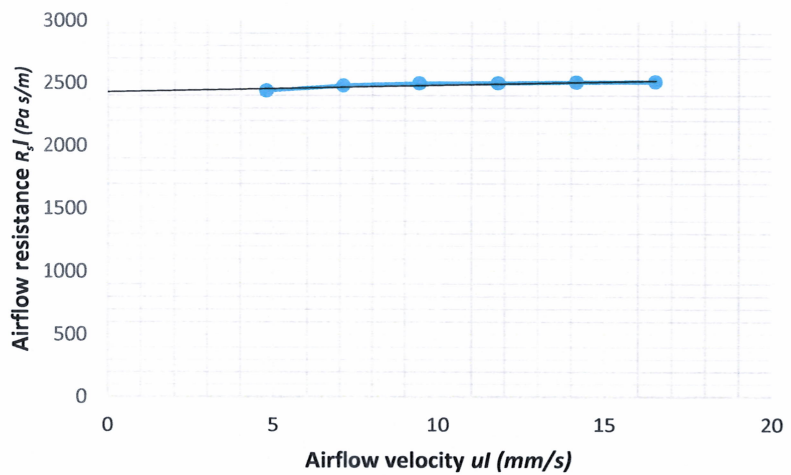
Client Kvadrat

Date: 15-06-20

Fabric details Type: Reflect
Colour: 204
Order:
Pick:
Manufacturer: Kvadrat

Specimen Diameter: 100 mm
Thickness: 0.47 mm
Area specific mass: 306 g/m²

u_l (mm/s)	$R_{s,l}$ (Pa s/m)
16.53	2511
14.16	2507
11.80	2500
9.44	2497
7.12	2480
4.80	2438



Airflow Resistance

$R_s = 2430$ Pa s/m