



Product NRC Rating 18mm thick foam

Acoustic tiles are constructed with 18mm thick sound absorbing foam.

12mm sound absorbing equivalent test by University of Salford with NRC rating of 0.25.

25mm sound absorbing equivalent test by SRL with NRC rating of 0.55.

Therefore inferred results for 18mm thick foam is 0.43 NRC rating.

Page 3 of 13

BS EN ISO 354:2003
Acoustics - Measurement of absorption in a reverberation room

Client: Carpenter Ltd
Dinling Lodge Industrial Estate
Glossop, Derbyshire
SK13 0LE

Object: FOX25140 12mm

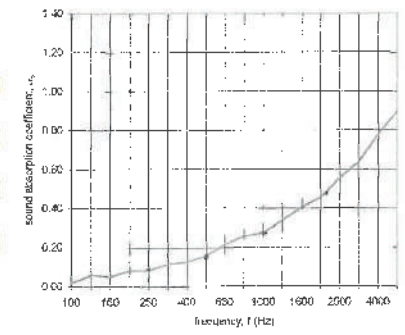
Size: 12.05 m²
Receiving room:

Volume: 220 m³
Condition: clean
Type: large reverberation room
Location: acoustic transmission suite

Sample out: Temperature [°C]: 20.1 Humidity [%]: 32.6
Sample in: Temperature [°C]: 20.4 Humidity [%]: 34.1

Sound absorption coefficient α_w
0.25 NRC


Frequency Hz	α_w
100	0.02
125	0.06
160	0.05
200	0.08
250	0.08
315	0.12
400	0.12
500	0.16
630	0.22
800	0.26
1000	0.27
1250	0.34
1600	0.41
2000	0.46
2500	0.56
3150	0.64
4000	0.78
5000	0.90



Test reference number 1306-1040 Date: 14/05/13

University of Salford, School of Computing, Science & Engineering SSV1

18 June 2013



Test Report No: C/23213/T01
Page 10 of 26
Date: 13/11/2015

This report shall not be reproduced, except in full, without written approval of SRL Technical Services Limited

Data Sheet 1

The Laboratory Measurement of Random Incidence Sound Absorption to BS EN ISO 354:2003

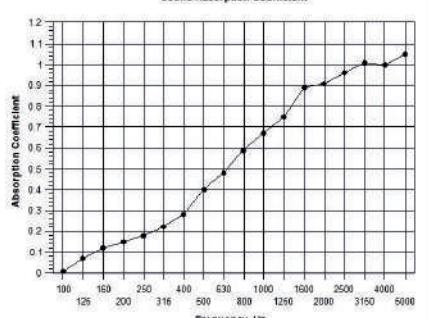
Test Date: 10/10/2015

Empty Room: Temperature: 18.3 °C Humidity: 68 %RH Pressure: 1013 mbar
Room with Sample: Temperature: 18.7 °C Humidity: 65 %RH Pressure: 1013 mbar

Sample Description: FOX28160 26mm Thick

Mounting Method: A
Sample Area: 11.85 m²
Chamber Volume: 300 m³

Test 2				
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	4.58	4.45	0.03	
63*	4.91	4.64	0.05	n/a
80*	5.32	5.11	0.03	
100	6.40	6.26	0.01	
125	6.72	6.06	0.07	0.05
160	6.84	5.88	0.12	
200	7.00	5.60	0.15	
250	7.30	5.52	0.18	0.20
315	7.03	5.07	0.22	
400	8.21	4.35	0.28	
500	5.32	3.49	0.40	0.40
630	5.11	3.20	0.46	
800	5.57	3.09	0.59	
1000	6.03	3.03	0.67	0.65
1250	5.62	2.61	0.75	
1600	5.31	2.47	0.89	
2000	4.62	2.33	0.91	0.90
2500	4.35	2.15	0.98	
3150	3.63	1.92	1.01	
4000	2.99	1.73	1.00	1.00
5000	2.38	1.48	1.05	
6300*	1.74	1.19	1.09	
8000*	1.35	0.99	1.11	n/a
10000*	0.95	0.76	1.09	



α_w 0.45(H)

Class D
Calculated to EN ISO 11654:1997

NRC 0.55
Calculated to ASTM C 423-01

* Denotes frequencies outside the range covered by BS EN ISO 354:2003

T1: empty room reverberation time
T2: room reverberation time with sample

Practical absorption coefficient, BS EN ISO 11654:1997