Acoustic Test Report - Absorption

Absorption Class: B
Calculated to EN ISO 11654:1997
Fabric: Coloured Wool Serge
Fullness: 50%
Cavity from Wall: 100mm

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Data Sheet 17

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

Client: J & C Joel Ltd
Test Date: 30/11/2020
Empty Room: **Temperature:** 16.4 °C **Humidity:** 57 %RH **Pressure:** 1016 mbar
Room with Sample: **Temperature:** 15.7 °C **Humidity:** 56 %RH **Pressure:** 1010 mbar
Sample Description: Coloured Wool Serge - Single Layer - 50% Fullness (Approx. Weight 500g/m²) - 100mm Cavity From Wall

Mounting Method: G - 100
Sample Area: 9 m²
Chamber Volume: 300 m³

	Test 17			
Freq Hz	T1 sec	T2 sec	Absorp Coeff α_s	Practical Absorp Coeff #
*50**	*5.15*	*5.21*	*-0.01*	
*63**	*4.83*	*5.31*	*-0.10*	*n/a*
*80**	*7.33*	*7.00*	*0.04*	
100	7.42	6.33	0.13	
125	7.17	5.52	0.23	0.20
160	6.75	4.96	0.29	
200	6.77	4.62	0.37	
250	6.80	4.23	0.49	0.50
315	6.65	3.66	0.67	
400	6.46	3.23	0.84	
500	5.63	2.87	0.93	0.95
630	5.00	2.58	1.02	
800	5.22	2.72	0.96	
1000	5.79	2.93	0.92	0.95
1250	5.75	2.94	0.90	
1600	5.33	2.87	0.87	
2000	4.93	2.72	0.89	0.90
2500	4.35	2.50	0.91	
3150	3.55	2.17	0.95	
4000	2.92	1.86	1.02	1.00
5000	2.34	1.60	1.00	
*6300**	*1.60*	*1.17*	*1.14*	
*8000**	*1.30*	*1.01*	*1.04*	*n/a*
*10000**	*0.93*	*0.74*	*1.28*	

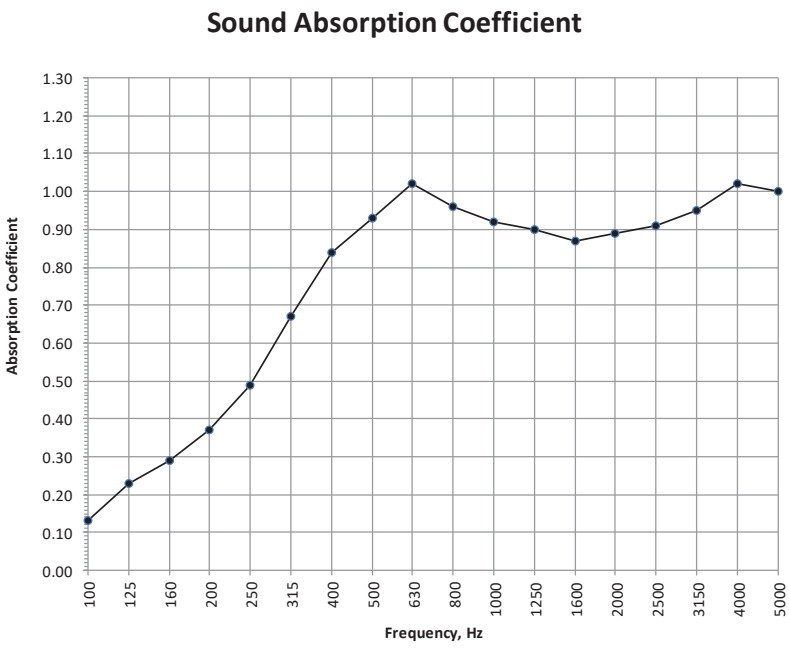
α_w 0.80(H)

Class B
Calculated to EN ISO 11654:1997

NRC 0.80
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 v5

Acoustic Test Report - Absorption

Absorption Class: B
Calculated to EN ISO 11654:1997
Fabric: Coloured Wool Serge
Fullness: 50%
Cavity from Wall: 350mm

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Data Sheet 18

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

Client: J & C Joel Ltd
Test Date: 30/11/2020

Empty Room:	**Temperature:**	16.4	°C	**Humidity:**	57	%RH	**Pressure:**	1016 mbar
Room with Sample:	**Temperature:**	15.7	°C	**Humidity:**	56	%RH	**Pressure:**	1009 mbar

Sample Description: Coloured Wool Serge - Single Layer - 50% Fullness (Approx. Weight 500g/m²) - 350mm Cavity From Wall

Mounting Method: G - 350
Sample Area: 9 m²
Chamber Volume: 300 m³

	Test 18			
Freq Hz	T1 sec	T2 sec	Absorp Coeff α_s	Practical Absorp Coeff #
*50**	*5.15*	*4.78*	*0.08*	
*63**	*4.83*	*4.91*	*-0.02*	*n/a*
*80**	*7.33*	*6.13*	*0.15*	
100	7.42	5.95	0.18	
125	7.17	4.91	0.35	0.30
160	6.75	4.40	0.43	
200	6.77	4.32	0.45	
250	6.80	3.83	0.62	0.60
315	6.65	3.52	0.73	
400	6.46	3.25	0.83	
500	5.63	3.10	0.79	0.80
630	5.00	2.83	0.83	
800	5.22	2.83	0.88	
1000	5.79	2.95	0.90	0.90
1250	5.75	2.90	0.93	
1600	5.33	2.73	0.97	
2000	4.93	2.66	0.93	0.95
2500	4.35	2.41	0.99	
3150	3.55	2.12	1.01	
4000	2.92	1.81	1.10	1.00
5000	2.34	1.54	1.14	
*6300**	*1.60*	*1.14*	*1.26*	
*8000**	*1.30*	*0.98*	*1.21*	*n/a*
*10000**	*0.93*	*0.72*	*1.49*	

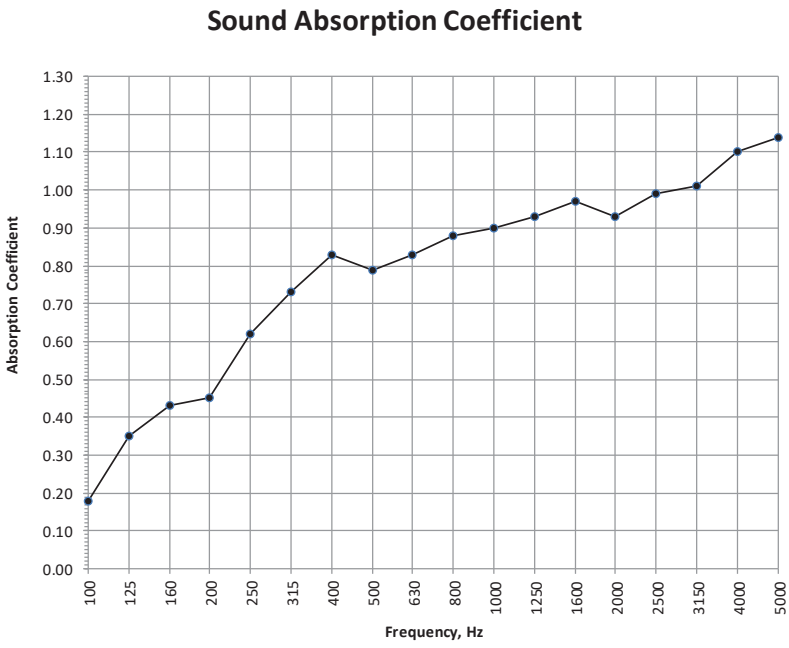
α_w 0.85(H)

Class B
Calculated to EN ISO 11654:1997

NRC 0.80
Calculated to ASTM C423-01

** 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 | v5

Acoustic Test Report - Absorption

Absorption Class: A
Calculated to EN ISO 11654:1997
Fabric: Coloured Wool Serge
Fullness: 100%
Cavity from Wall: 100mm

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Data Sheet 15

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

Client: J & C Joel Ltd
Test Date: 30/11/2020
Empty Room: **Temperature:** 16.4 °C **Humidity:** 57 %RH **Pressure:** 1016 mbar
Room with Sample: **Temperature:** 15.7 °C **Humidity:** 56 %RH **Pressure:** 1011 mbar
Sample Description: Coloured Wool Serge - Single Layer - 100% Fullness (Approx. Weight 500g/m²) - 100mm Cavity From Wall

Mounting Method: G - 100
Sample Area: 9 m²
Chamber Volume: 300 m³

	Test 15			
Freq Hz	T1 sec	T2 sec	Absorp Coeff α_s	Practical Absorp Coeff #
*50**	*5.15*	*5.05*	*0.02*	
*63**	*4.83*	*5.12*	*-0.06*	*n/a*
*80**	*7.33*	*6.97*	*0.04*	
100	7.42	6.36	0.12	
125	7.17	5.03	0.32	0.25
160	6.75	4.74	0.34	
200	6.77	4.35	0.45	
250	6.80	3.81	0.63	0.60
315	6.65	3.44	0.76	
400	6.46	3.07	0.93	
500	5.63	2.83	0.96	0.95
630	5.00	2.57	1.03	
800	5.22	2.68	0.99	
1000	5.79	2.92	0.92	0.95
1250	5.75	2.84	0.97	
1600	5.33	2.70	0.99	
2000	4.93	2.56	1.01	1.00
2500	4.35	2.42	0.98	
3150	3.55	2.11	1.02	
4000	2.92	1.83	1.06	1.00
5000	2.34	1.55	1.11	
*6300**	*1.60*	*1.17*	*1.14*	
*8000**	*1.30*	*0.99*	*1.15*	*n/a*
*10000**	*0.93*	*0.75*	*1.19*	

α_w 0.90

Class A

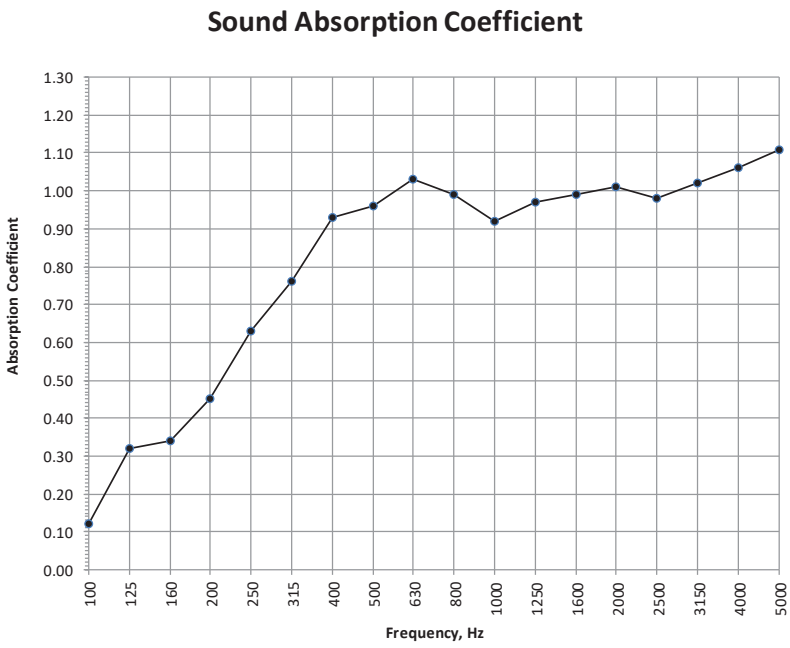
Calculated to EN ISO 11654:1997

NRC 0.90

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

v5

Acoustic Test Report - Absorption

Absorption Class: A
Calculated to EN ISO 11654:1997
Fabric: Coloured Wool Serge
Fullness: 100%
Cavity from Wall: 350mm

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Data Sheet 16

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

Client: J & C Joel Ltd
Test Date: 30/11/2020

Empty Room:	**Temperature:**	16.4	°C	**Humidity:**	57	%RH	**Pressure:**	1016 mbar
Room with Sample:	**Temperature:**	15.7	°C	**Humidity:**	56	%RH	**Pressure:**	1010 mbar

Sample Description: Coloured Wool Serge - Single Layer - 100% Fullness (Approx. Weight 500g/m²) - 350mm Cavity From Wall

Mounting Method: G - 350
Sample Area: 9 m²
Chamber Volume: 300 m³

Test 16

Freq Hz	T1 sec	T2 sec	Absorp Coeff α_s	Practical Absorp Coeff #
*50**	*5.15*	*4.91*	*0.05*	
*63**	*4.83*	*4.95*	*-0.03*	*n/a*
*80**	*7.33*	*6.01*	*0.16*	
100	7.42	5.88	0.19	
125	7.17	4.69	0.40	0.35
160	6.75	4.42	0.42	
200	6.77	4.01	0.55	
250	6.80	3.80	0.63	0.65
315	6.65	3.42	0.77	
400	6.46	3.25	0.83	
500	5.63	3.02	0.83	0.90
630	5.00	2.63	0.98	
800	5.22	2.72	0.96	
1000	5.79	2.87	0.95	1.00
1250	5.75	2.72	1.05	
1600	5.33	2.65	1.03	
2000	4.93	2.55	1.02	1.00
2500	4.35	2.32	1.08	
3150	3.55	2.01	1.15	
4000	2.92	1.73	1.24	1.00
5000	2.34	1.50	1.23	
*6300**	*1.60*	*1.14*	*1.26*	
*8000**	*1.30*	*0.95*	*1.38*	*n/a*
*10000**	*0.93*	*0.72*	*1.49*	

α_w 0.90

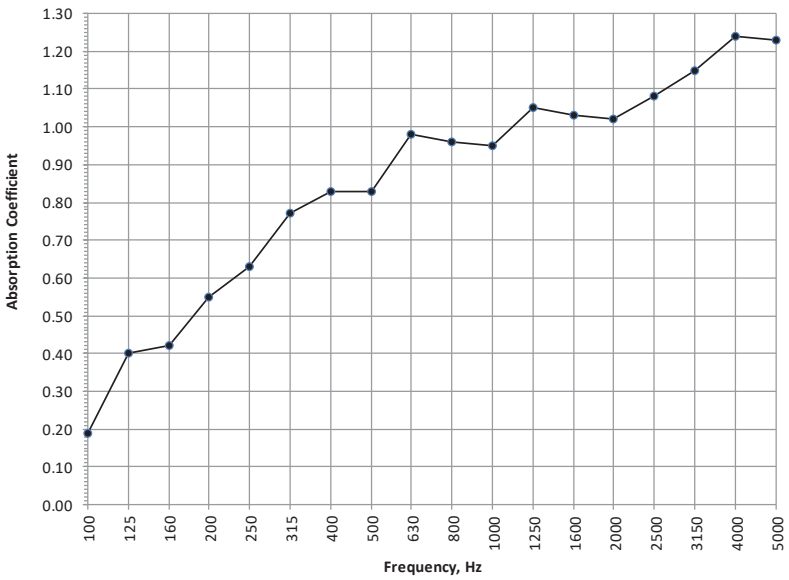
Class A
Calculated to EN ISO 11654:1997

NRC 0.85
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

Sound Absorption Coefficient



Practical absorption coefficient, BS EN ISO 11654:1997

v5