

Acoustic Test Report - Absorption

Absorption Class: C

Calculated to EN ISO 11654:1997

Fabric: Bonded Wool Serge 420
Fullness: Single Roller Banner System
Cavity from Wall: 100mm



the inspiration behind the performance

Data Sheet 1

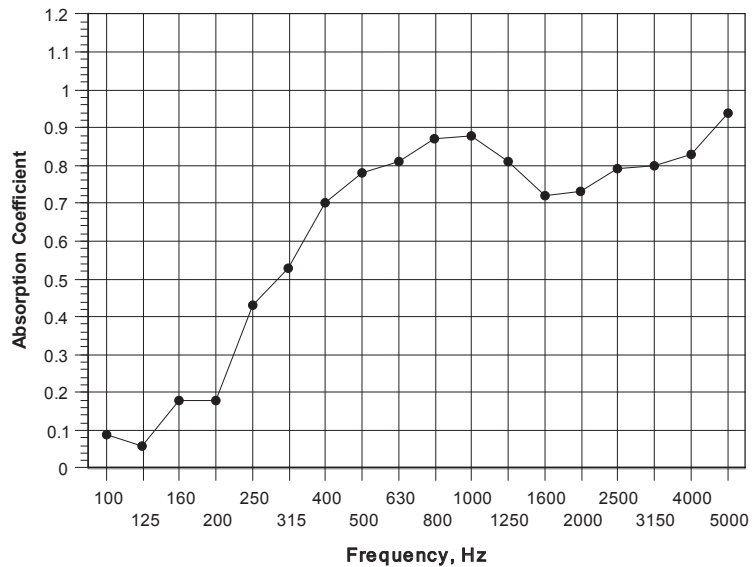
The Laboratory Measurement of Random Incidence Sound Absorption generally to BS EN ISO 354:2003

Client: J&C Joel Ltd
Test Date: 12/04/2014
Empty Room: **Temperature:** 17.0 °C **Humidity:** 57 %RH **Pressure:** 1010 mbar
Room with Sample: **Temperature:** 16.9 °C **Humidity:** 54 %RH **Pressure:** 1010 mbar
Sample Description: Single Roller Banner System - Bonded Wool Serge 420 (Approx. Weight 840g/m² Made up of 2 Bonded Layers of 420g/m² Fabric) - 100mm Cavity From Wall
Mounting Method: G-100
Sample Area: 9 m²
Chamber Volume: 300 m³

Test 2

Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.07	5.15	-0.02	
63*	4.60	4.58	0.01	n/a
80*	5.86	5.54	0.05	
100	6.96	6.22	0.09	
125	7.22	6.70	0.06	0.10
160	6.82	5.57	0.18	
200	6.37	5.25	0.18	
250	7.19	4.57	0.43	0.40
315	7.06	4.18	0.53	
400	6.40	3.50	0.70	
500	5.35	3.02	0.78	0.75
630	5.03	2.87	0.81	
800	5.43	2.90	0.87	
1000	5.96	3.02	0.88	0.85
1250	5.70	3.08	0.81	
1600	5.08	3.02	0.72	
2000	4.62	2.83	0.73	0.75
2500	4.17	2.57	0.79	
3150	3.50	2.28	0.80	
4000	2.85	1.95	0.83	0.85
5000	2.25	1.58	0.94	
6300*	1.66	1.24	0.98	
8000*	1.38	1.06	1.00	n/a
10000*	0.93	0.75	1.13	

Sound Absorption Coefficient



α_w 0.70(H)

Class C

Calculated to EN ISO 11654:1997

NRC 0.70

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

v4.3

Acoustic Test Report - Absorption

Absorption Class: B

Calculated to EN ISO 11654:1997

Fabric: Bonded Wool Serge 420
Fullness: Single Roller Banner System
Cavity from Wall: 350mm



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Data Sheet 2

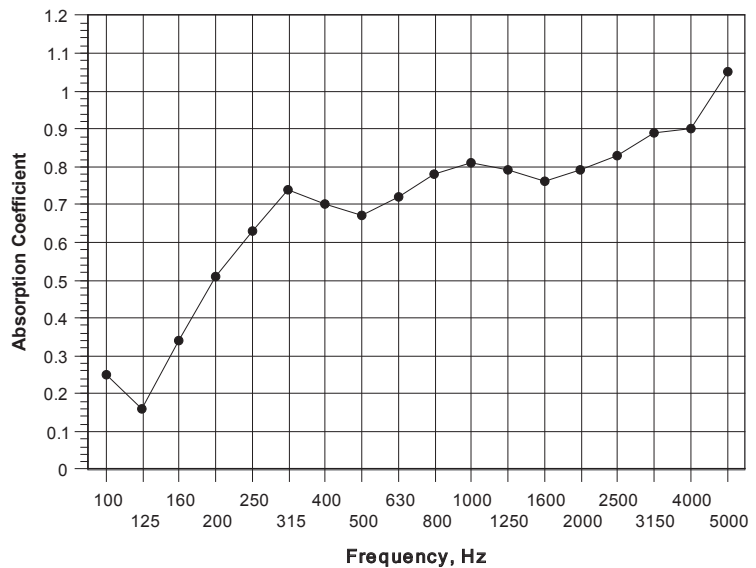
The Laboratory Measurement of Random Incidence Sound Absorption generally to BS EN ISO 354:2003

Client: J&C Joel Ltd
Test Date: 12/04/2014
Empty Room: **Temperature:** 17.0 °C **Humidity:** 57 %RH **Pressure:** 1010 mbar
Room with Sample: **Temperature:** 16.9 °C **Humidity:** 54 %RH **Pressure:** 1010 mbar
Sample Description: Single Roller Banner System - Bonded Wool Serge 420 (Approx. Weight 840g/m² Made up of 2 Bonded Layers of 420g/m² Fabric) - 350mm Cavity From Wall
Mounting Method: G-350
Sample Area: 9 m²
Chamber Volume: 300 m³

Test 3

Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.07	4.76	0.07	
63*	4.60	3.85	0.23	n/a
80*	5.86	5.00	0.16	
100	6.96	5.26	0.25	
125	7.22	5.93	0.16	0.25
160	6.82	4.79	0.34	
200	6.37	3.99	0.51	
250	7.19	3.91	0.63	0.65
315	7.06	3.58	0.74	
400	6.40	3.50	0.70	
500	5.35	3.22	0.67	0.70
630	5.03	3.02	0.72	
800	5.43	3.04	0.78	
1000	5.96	3.14	0.81	0.80
1250	5.70	3.10	0.79	
1600	5.08	2.96	0.76	
2000	4.62	2.75	0.79	0.80
2500	4.17	2.52	0.83	
3150	3.50	2.19	0.89	
4000	2.85	1.90	0.90	0.95
5000	2.25	1.53	1.05	
6300*	1.66	1.18	1.20	
8000*	1.38	1.03	1.15	n/a
10000*	0.93	0.75	1.13	

Sound Absorption Coefficient



α_w 0.80(H)

Class B

Calculated to EN ISO 11654:1997

NRC 0.75

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

v4.3

Acoustic Test Report - Absorption

Absorption Class: C

Calculated to EN ISO 11654:1997

Fabric: Bonded Wool Serge 565
Fullness: Single Roller Banner System
Cavity from Wall: 100mm



the inspiration behind the performance

Data Sheet 1

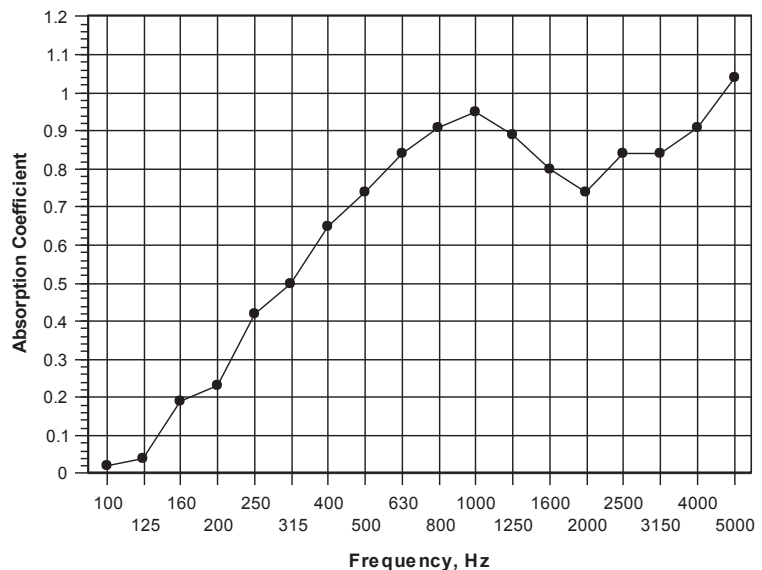
The Laboratory Measurement of Random Incidence Sound Absorption generally to BS EN ISO 354:2003

Client: J&C Joel Ltd
Test Date: 12/04/2014
Empty Room: Temperature: 17.0 °C Humidity: 57 %RH Pressure: 1010 mbar
Room with Sample: Temperature: 16.8 °C Humidity: 52 %RH Pressure: 1010 mbar
Sample Description: Single Roller Banner System - Bonded Wool Serge 565 (Approx. Weight 1130g/m² Made up of 2 Bonded Layers of 565g/m² Fabric) - 100mm Cavity From Wall
Mounting Method: G-100
Sample Area: 9 m²
Chamber Volume: 300 m³

Test 6

Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.07	5.19	-0.02	
63*	4.60	4.56	0.01	n/a
80*	5.86	5.55	0.05	
100	6.96	6.74	0.02	
125	7.22	6.83	0.04	0.10
160	6.82	5.50	0.19	
200	6.37	5.02	0.23	
250	7.19	4.61	0.42	0.40
315	7.06	4.27	0.50	
400	6.40	3.63	0.65	
500	5.35	3.09	0.74	0.75
630	5.03	2.83	0.84	
800	5.43	2.84	0.91	
1000	5.96	2.91	0.95	0.90
1250	5.70	2.93	0.89	
1600	5.08	2.89	0.80	
2000	4.62	2.81	0.74	0.80
2500	4.17	2.49	0.84	
3150	3.50	2.22	0.84	
4000	2.85	1.87	0.91	0.95
5000	2.25	1.51	1.04	
6300*	1.66	1.17	1.15	
8000*	1.38	1.00	1.17	n/a
10000*	0.93	0.73	1.14	

Sound Absorption Coefficient



a_{ω} 0.70(H)

Class C

Calculated to EN ISO 11654:1997

NRC 0.70

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

v4.3

Acoustic Test Report - Absorption

Absorption Class: B

Calculated to EN ISO 11654:1997

Fabric: Bonded Wool Serge 565
Fullness: Single Roller Banner System
Cavity from Wall: 350mm



the inspiration behind the performance

Data Sheet 1

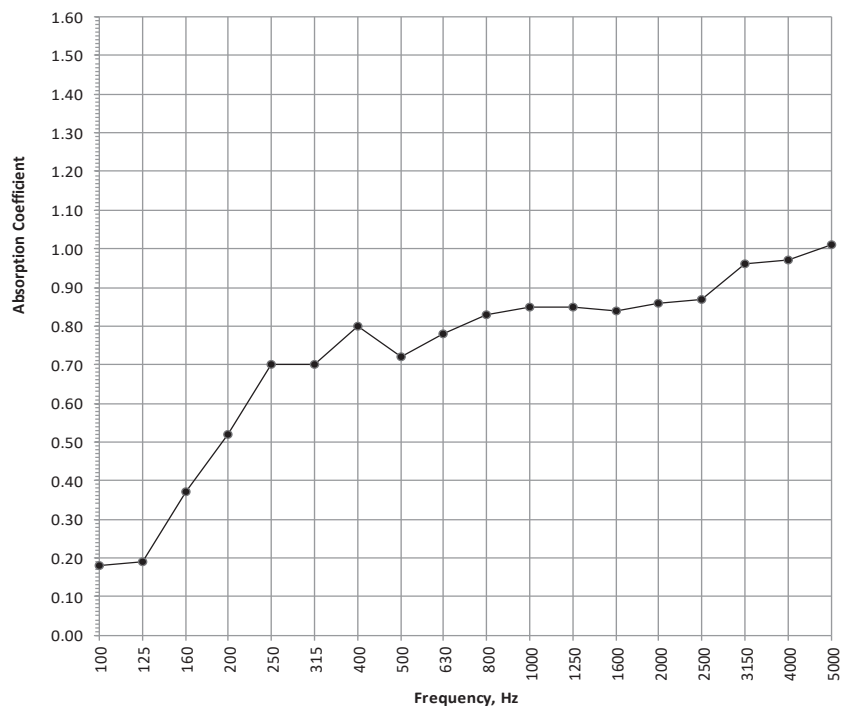
The Laboratory Measurement of Random Incidence Sound Absorption generally to BS EN ISO 354:2003

Client: J & C Joel Ltd
Test Date: 08/03/2019
Empty Room: **Temperature:** 15.7 °C **Humidity:** 55 %RH **Pressure:** 1004 mbar
Room with Sample: **Temperature:** 15.8 °C **Humidity:** 50 %RH **Pressure:** 1003 mbar
Sample Description: Single Roller Banner System - Bonded Wool Serge 565 (Approx. Weight 1130g/m² Made up of 2 Bonded Layers of 565g/m² Fabric) - 350mm Cavity From Wall
 G - 350
Mounting Method:
Sample Area: 9 m²
Chamber Volume: 300 m³

Test 9

Freq Hz	T1 sec	T2 sec	Absorp Coeff α_s	Practical Absorp Coeff #
50*	4.90	4.48	0.10	
63*	5.23	4.96	0.06	n/a
80*	6.95	6.36	0.07	
100	7.63	6.09	0.18	
125	7.10	5.69	0.19	0.25
160	6.60	4.56	0.37	
200	6.85	4.12	0.52	
250	7.10	3.69	0.70	0.65
315	6.87	3.63	0.70	
400	6.65	3.36	0.80	
500	5.64	3.22	0.72	0.75
630	4.96	2.90	0.78	
800	5.19	2.89	0.83	
1000	5.67	3.00	0.85	0.85
1250	5.64	2.98	0.85	
1600	5.32	2.90	0.84	
2000	4.86	2.71	0.86	0.85
2500	4.14	2.45	0.87	
3150	3.41	2.08	0.96	
4000	2.75	1.79	0.97	1.00
5000	2.14	1.47	1.01	
6300*	1.46	1.07	1.14	
8000*	1.18	0.90	1.12	n/a
10000*	0.83	0.67	1.13	

Sound Absorption Coefficient



α_w 0.85(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