

# Acoustic Test Report - Absorption

**Absorption Class: C**

Calculated to EN ISO 11654:1997

**Fabric: Countess**

**Fullness: 50%**

**Cavity from Wall: 100mm**

C

Royal

50%

100mm

# J&C Joel

Inspiration in every performance

## Data Sheet 28

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

**Client:** J&C Joel Ltd

**Test Date:** 20/05/2014

**Empty Room:** Temperature: 19.0 °C Humidity: 62 %RH Pressure: 999 mbar

**Room with Sample:** Temperature: 19.1 °C Humidity: 60 %RH Pressure: 1001 mbar

**Sample Description:** - Single Layer - 50% fullness (Approx. weight 375g/m<sup>2</sup>) - 100mm cavity from wall

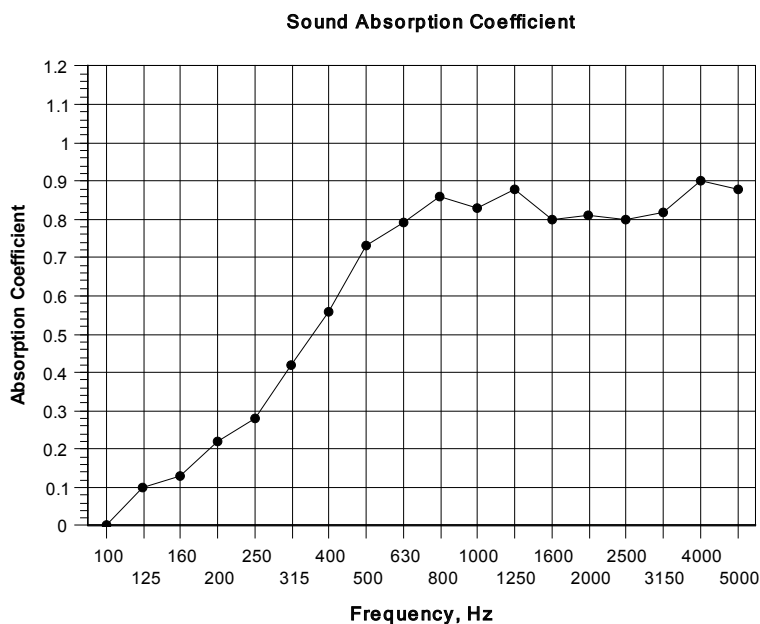
**Mounting Method:** G-100

**Sample Area:** 9 m<sup>2</sup>

**Chamber Volume:** 300 m<sup>3</sup>

### Test 30

Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.33	5.70	-0.07	
63*	5.40	4.73	0.14	n/a
80*	6.56	6.07	0.07	
100	7.57	7.59	-0.00	
125	7.11	6.26	0.10	0.10
160	6.42	5.56	0.13	
200	7.12	5.50	0.22	
250	7.07	5.15	0.28	0.30
315	6.84	4.46	0.42	
400	6.46	3.87	0.56	
500	5.45	3.13	0.73	0.70
630	4.96	2.87	0.79	
800	5.47	2.92	0.86	
1000	5.91	3.09	0.83	0.85
1250	5.59	2.92	0.88	
1600	5.06	2.89	0.80	
2000	4.75	2.76	0.81	0.80
2500	4.34	2.63	0.80	
3150	3.64	2.33	0.82	
4000	3.09	2.02	0.90	0.85
5000	2.44	1.73	0.88	
6300*	1.79	1.38	0.85	
8000*	1.51	1.18	0.92	n/a
10000*	1.06	0.83	1.30	



$\alpha_w$  0.60(MH)

Class C

Calculated to EN ISO 11654:1997

NRC 0.65

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

United Kingdom

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# Acoustic Test Report - Absorption

**Absorption Class: C**

Calculated to EN ISO 11654:1997

**Fabric: Countess**

**Fullness: 50%**

**Cavity from Wall: 100mm**

C

Royal

50%

350mm

# J&C Joel

Inspiration in every performance

Data Sheet 27

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

**Client:** J&C Joel Ltd

**Test Date:** 20/05/2014

**Empty Room:** **Temperature:** 19.0 °C **Humidity:** 62 %RH **Pressure:** 999 mbar

**Room with Sample:** **Temperature:** 19.1 °C **Humidity:** 60 %RH **Pressure:** 1001 mbar

**Sample Description:** - Single Layer - 50% fullness (Approx. weight 375g/m<sup>2</sup>) - 350mm cavity from wall

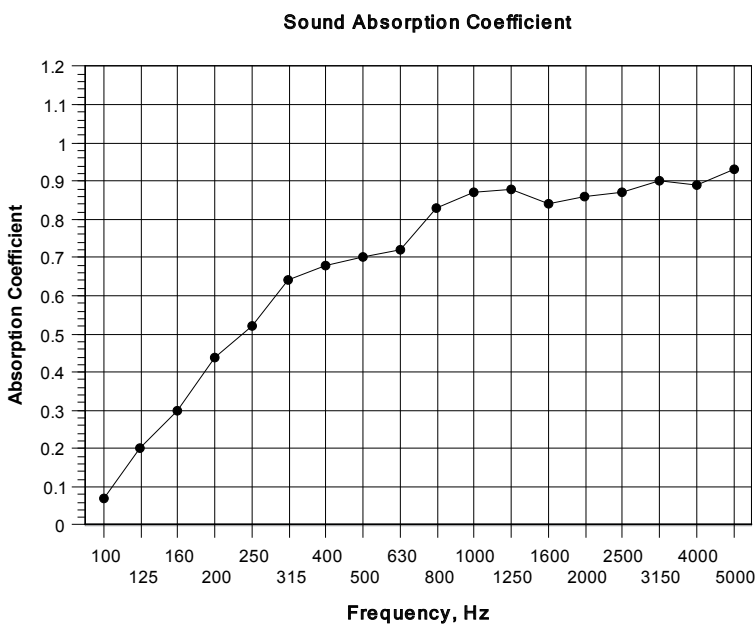
**Mounting Method:** G-350

**Sample Area:** 9 m<sup>2</sup>

**Chamber Volume:** 300 m<sup>3</sup>

**Test 29**

Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.33	5.73	-0.07	
63*	5.40	4.45	0.21	n/a
80*	6.56	5.72	0.12	
100	7.57	6.88	0.07	
125	7.11	5.60	0.20	0.20
160	6.42	4.71	0.30	
200	7.12	4.51	0.44	
250	7.07	4.19	0.52	0.55
315	6.84	3.76	0.64	
400	6.46	3.56	0.68	
500	5.45	3.18	0.70	0.70
630	4.96	2.98	0.72	
800	5.47	2.97	0.83	
1000	5.91	3.03	0.87	0.85
1250	5.59	2.92	0.88	
1600	5.06	2.82	0.84	
2000	4.75	2.70	0.86	0.85
2500	4.34	2.54	0.87	
3150	3.64	2.25	0.90	
4000	3.09	2.03	0.89	0.90
5000	2.44	1.70	0.93	
6300*	1.79	1.33	0.99	
8000*	1.51	1.15	1.04	n/a
10000*	1.06	0.84	1.22	



$A_{\omega}$  0.75(H)

Class C

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

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**Absorption Class: C**  
 Calculated to EN ISO 11654:1997

C

**Fabric: Countess**

Royal

**Fullness: 50%**

100%

**Cavity from Wall: 100mm**

100mm

[Data Sheet 29](#)

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

**Client:** J&C Joel Ltd

**Test Date:** 20/05/2014

**Empty Room:** **Temperature:** 19.0 °C **Humidity:** 62 %RH **Pressure:** 999 mbar

**Room with Sample:** **Temperature:** 19.2 °C **Humidity:** 60 %RH **Pressure:** 1001 mbar

**Sample Description:** – Single Layer – 100% fullness (Approx. weight 375g/m<sup>2</sup>) – 100mm cavity from wall

**Mounting Method:** G-100

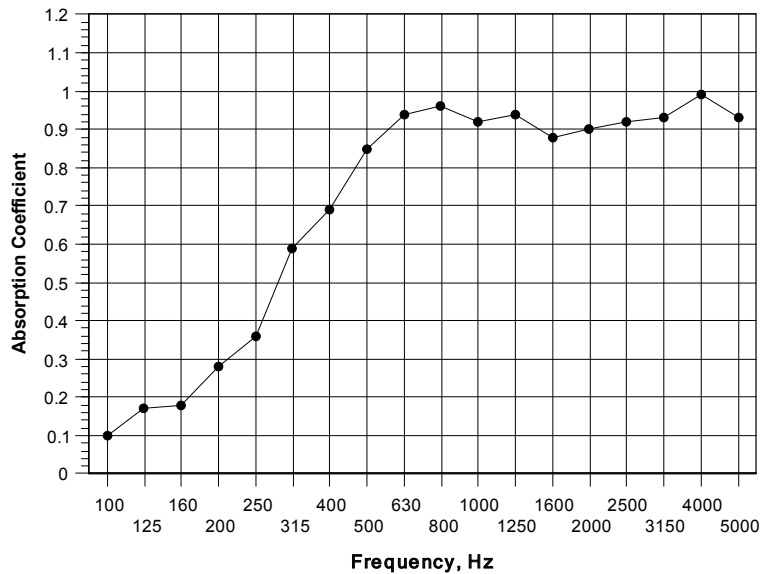
**Sample Area:** 9 m<sup>2</sup>

**Chamber Volume:** 300 m<sup>3</sup>

**Test 31**

Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.33	5.59	-0.05	
63*	5.40	4.51	0.20	n/a
80*	6.56	5.96	0.08	
100	7.57	6.67	0.10	
125	7.11	5.78	0.17	0.15
160	6.42	5.29	0.18	
200	7.12	5.20	0.28	
250	7.07	4.80	0.36	0.40
315	6.84	3.91	0.59	
400	6.46	3.53	0.69	
500	5.45	2.93	0.85	0.85
630	4.96	2.66	0.94	
800	5.47	2.77	0.96	
1000	5.91	2.94	0.92	0.95
1250	5.59	2.83	0.94	
1600	5.06	2.77	0.88	
2000	4.75	2.64	0.90	0.90
2500	4.34	2.48	0.92	
3150	3.64	2.23	0.93	
4000	3.09	1.96	0.99	0.95
5000	2.44	1.70	0.93	
6300*	1.79	1.36	0.91	
8000*	1.51	1.17	0.97	n/a
10000*	1.06	0.83	1.31	

Sound Absorption Coefficient



$\alpha_w$  0.70(MH)

Class C

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

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**Absorption Class: C**

Calculated to EN ISO 11654:1997

**Fabric: Countess**

**Fullness: 50%**

**Cavity from Wall: 100mm**

C

Royal

100%

350mm

# J&C Joel

Inspiration in every performance

## Data Sheet 30

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

**Client:** J&C Joel Ltd

**Test Date:** 20/05/2014

**Empty Room:** **Temperature:** 19.0 °C **Humidity:** 62 %RH **Pressure:** 999 mbar

**Room with Sample:** **Temperature:** 19.2 °C **Humidity:** 60 %RH **Pressure:** 1001 mbar

**Sample Description:** - Single Layer - 100% fullness (Approx. weight 375g/m<sup>2</sup>) - 350mm cavity from wall

**Mounting Method:** G-350

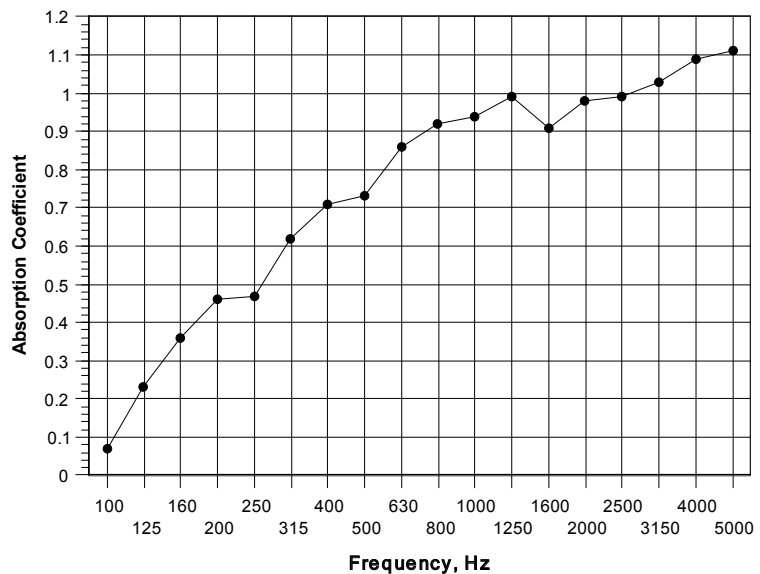
**Sample Area:** 9 m<sup>2</sup>

**Chamber Volume:** 300 m<sup>3</sup>

### Test 32

Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.33	4.99	0.07	
63*	5.40	4.63	0.17	n/a
80*	6.56	5.71	0.12	
100	7.57	6.85	0.07	
125	7.11	5.46	0.23	0.20
160	6.42	4.50	0.36	
200	7.12	4.41	0.46	
250	7.07	4.38	0.47	0.50
315	6.84	3.83	0.62	
400	6.46	3.48	0.71	
500	5.45	3.14	0.73	0.75
630	4.96	2.77	0.86	
800	5.47	2.83	0.92	
1000	5.91	2.91	0.94	0.95
1250	5.59	2.76	0.99	
1600	5.06	2.73	0.91	
2000	4.75	2.54	0.98	0.95
2500	4.34	2.41	0.99	
3150	3.64	2.14	1.03	
4000	3.09	1.89	1.09	1.00
5000	2.44	1.61	1.11	
6300*	1.79	1.34	0.97	
8000*	1.51	1.13	1.14	n/a
10000*	1.06	0.80	1.56	

Sound Absorption Coefficient



$\alpha_w$  0.75(H)

Class C

Calculated to EN ISO 11654:1997

NRC 0.80

Calculated to ASTM C 423-01

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