

# Acoustic Test Report

Fabric: Wool Serge 3.0

# SRL

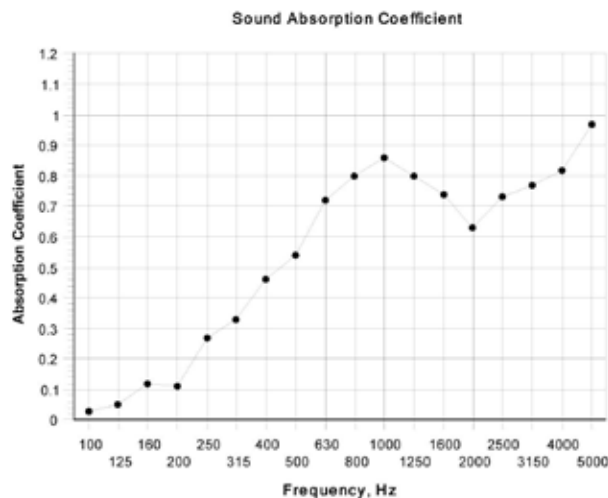
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[Data Sheet 9](#)

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: 16.7 °C Humidity: 50 %RH Pressure: 1009 mbar  
 Sample Description: Premier Wool Serge - Single Layer - Flat (Approx. weight 565g/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 10				
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.07	5.34	-0.05	
63*	4.60	4.75	-0.04	n/a
80*	5.86	5.27	0.10	
100	6.96	6.70	0.03	
125	7.22	6.73	0.05	0.05
160	6.82	5.92	0.12	
200	6.37	5.61	0.11	
250	7.19	5.28	0.27	0.25
315	7.06	4.95	0.33	
400	6.40	4.16	0.46	
500	5.35	3.50	0.54	0.55
630	5.03	3.02	0.72	
800	5.43	3.01	0.80	
1000	5.96	3.06	0.86	0.80
1250	5.70	3.09	0.80	
1600	5.08	2.98	0.74	
2000	4.62	2.96	0.63	0.70
2500	4.17	2.61	0.73	
3150	3.50	2.26	0.77	
4000	2.85	1.90	0.82	0.85
5000	2.25	1.51	0.97	
6300*	1.66	1.16	1.09	
8000*	1.38	0.98	1.13	n/a
10000*	0.93	0.69	1.36	



$a_w$  0.55(MH)  
 Class D  
 Calculated to EN ISO 11654:1997  
 NRC 0.60  
 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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# Acoustic Test Report

Fabric: Wool Serge 3.0

# S R L

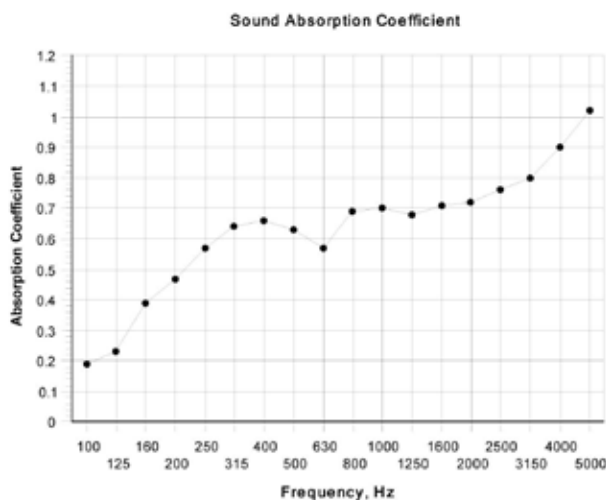
Confidential

[Data Sheet 10](#)

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: 16.7 °C Humidity: 50 %RH Pressure: 1009 mbar  
 Sample Description: Premier Wool Serge - Single Layer - Flat (Approx. weight 565g/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 11				
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.07	4.92	0.03	
63*	4.60	3.97	0.19	n/a
80*	5.86	5.00	0.16	
100	6.96	5.59	0.19	
125	7.22	5.50	0.23	0.25
160	6.82	4.58	0.39	
200	6.37	4.11	0.47	
250	7.19	4.08	0.57	0.55
315	7.06	3.86	0.64	
400	6.40	3.60	0.66	
500	5.35	3.31	0.63	0.60
630	5.03	3.30	0.57	
800	5.43	3.21	0.69	
1000	5.96	3.37	0.70	0.70
1250	5.70	3.31	0.68	
1600	5.08	3.02	0.71	
2000	4.62	2.83	0.72	0.75
2500	4.17	2.57	0.76	
3150	3.50	2.23	0.80	
4000	2.85	1.85	0.90	0.90
5000	2.25	1.49	1.02	
6300*	1.66	1.16	1.09	
8000*	1.38	0.98	1.13	n/a
10000*	0.93	0.69	1.36	



$a_w$  0.70(H)  
 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

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# Acoustic Test Report

Fabric: Wool Serge 3.0

# SRL

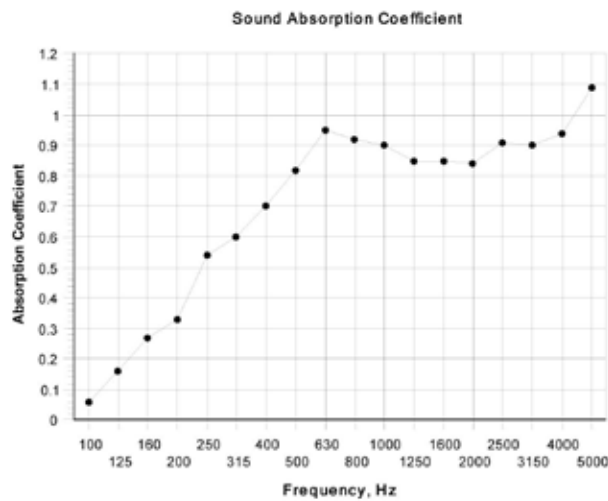
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[Data Sheet 13](#)

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: 16.7 °C Humidity: 49 %RH Pressure: 1009 mbar  
 Sample Description: Premier Wool Serge – Single Layer – 50% fullness (Approx. weight 565g/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 14				
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.07	5.19	-0.02	
63*	4.60	4.16	0.12	n/a
80*	5.86	5.26	0.10	
100	6.96	6.42	0.06	
125	7.22	5.91	0.16	0.15
160	6.82	5.07	0.27	
200	6.37	4.60	0.33	
250	7.19	4.18	0.54	0.50
315	7.06	3.96	0.60	
400	6.40	3.51	0.70	
500	5.35	2.96	0.82	0.80
630	5.03	2.67	0.95	
800	5.43	2.83	0.92	
1000	5.96	2.99	0.90	0.90
1250	5.70	2.99	0.85	
1600	5.08	2.80	0.85	
2000	4.62	2.65	0.84	0.85
2500	4.17	2.39	0.91	
3150	3.50	2.13	0.90	
4000	2.85	1.81	0.94	1.00
5000	2.25	1.45	1.09	
6300*	1.66	1.11	1.25	
8000*	1.38	0.94	1.30	n/a
10000*	0.93	0.66	1.62	



$a_w$  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

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# Acoustic Test Report

Fabric: Wool Serge 3.0

# SRL

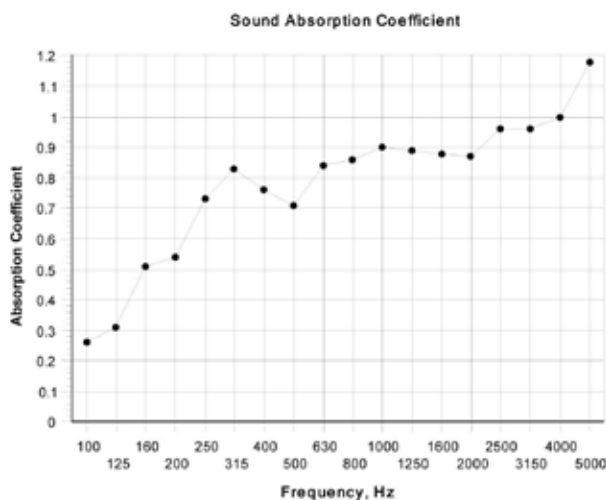
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[Data Sheet 14](#)

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: 16.1 °C Humidity: 49 %RH Pressure: 1009 mbar  
 Sample Description: Premier Wool Serge – Single Layer – 50% fullness (Approx. weight 565g/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 15				
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.07	4.88	0.04	
63*	4.60	4.17	0.12	n/a
80*	5.86	4.93	0.17	
100	6.96	5.24	0.26	
125	7.22	5.11	0.31	0.35
160	6.82	4.16	0.51	
200	6.37	3.89	0.54	
250	7.19	3.64	0.73	0.70
315	7.06	3.40	0.83	
400	6.40	3.37	0.76	
500	5.35	3.15	0.71	0.75
630	5.03	2.84	0.84	
800	5.43	2.92	0.86	
1000	5.96	2.99	0.90	0.90
1250	5.70	2.93	0.89	
1600	5.08	2.76	0.88	
2000	4.62	2.61	0.87	0.90
2500	4.17	2.33	0.96	
3150	3.50	2.07	0.96	
4000	2.85	1.76	1.00	1.00
5000	2.25	1.40	1.18	
6300*	1.66	1.08	1.32	
8000*	1.38	0.94	1.21	n/a
10000*	0.93	0.66	1.50	



$a_w$  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

# Acoustic Test Report

Fabric: Wool Serge 3.0

# SRL

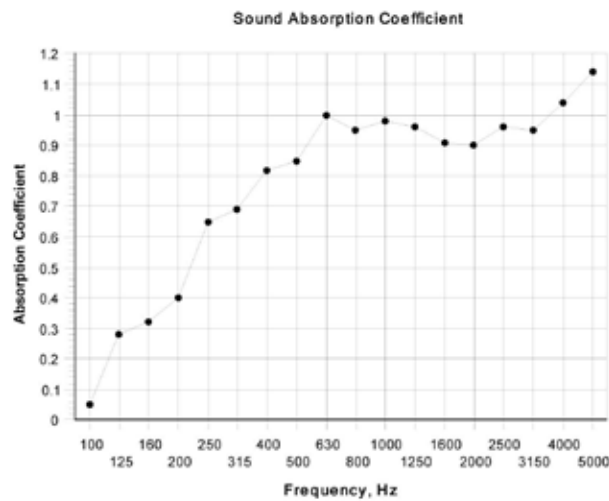
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[Data Sheet 16](#)

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

Client: J&C Joel Ltd  
 Test Date: 12/04/2014  
 Empty Room: Temperature: 17.0 °C Humidity: 57 %RH Pressure: 1010 mbar  
 Room with Sample: Temperature: 16.7 °C Humidity: 49 %RH Pressure: 1009 mbar  
 Sample Description: Premier Wool Serge – Single Layer – 100% fullness (Approx. weight 565g/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 17				
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.07	5.35	-0.06	
63*	4.60	3.67	0.30	n/a
80*	5.86	5.36	0.09	
100	6.96	6.57	0.05	
125	7.22	5.26	0.28	0.20
160	6.82	4.85	0.32	
200	6.37	4.32	0.40	
250	7.19	3.85	0.65	0.60
315	7.06	3.71	0.69	
400	6.40	3.25	0.82	
500	5.35	2.91	0.85	0.90
630	5.03	2.61	1.00	
800	5.43	2.78	0.95	
1000	5.96	2.87	0.98	0.95
1250	5.70	2.82	0.96	
1600	5.08	2.72	0.91	
2000	4.62	2.58	0.90	0.90
2500	4.17	2.34	0.96	
3150	3.50	2.09	0.95	
4000	2.85	1.75	1.04	1.00
5000	2.25	1.43	1.14	
6300*	1.66	1.11	1.25	
8000*	1.38	0.95	1.24	n/a
10000*	0.93	0.67	1.50	



$a_w$  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

# Practical absorption coefficient, BS EN ISO 11654:1997

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# Acoustic Test Report

Fabric: Wool Serge 3.0

# SRL

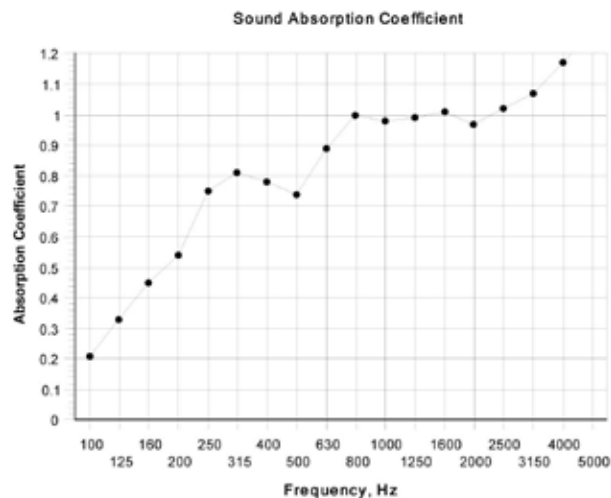
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[Data Sheet 15](#)

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

Client: J&C Joel Ltd  
 Test Date: 12/04/2014  
 Empty Room: Temperature: 17.0 °C Humidity: 57 %RH Pressure: 1010 mbar  
 Room with Sample: Temperature: 16.7 °C Humidity: 49 %RH Pressure: 1009 mbar  
 Sample Description: Premier Wool Serge – Single Layer – 100% fullness (Approx. weight 565g/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 16				
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
50*	5.07	4.93	0.03	
63*	4.60	3.72	0.28	n/a
80*	5.86	5.22	0.11	
100	6.96	5.48	0.21	
125	7.22	5.02	0.33	0.35
160	6.82	4.33	0.45	
200	6.37	3.89	0.54	
250	7.19	3.60	0.75	0.70
315	7.06	3.43	0.81	
400	6.40	3.34	0.78	
500	5.35	3.09	0.74	0.80
630	5.03	2.76	0.89	
800	5.43	2.71	1.00	
1000	5.96	2.86	0.98	1.00
1250	5.70	2.78	0.99	
1600	5.08	2.59	1.01	
2000	4.62	2.49	0.97	1.00
2500	4.17	2.28	1.02	
3150	3.50	2.00	1.07	
4000	2.85	1.68	1.17	1.00
5000	2.25	1.38	1.28	
6300*	1.66	1.08	1.39	
8000*	1.38	0.93	1.36	n/a
10000*	0.93	0.67	1.50	



$a_w$  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

# Practical absorption coefficient, BS EN ISO 11654:1997

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