WOOL SERGE 3.0

Perfect For: Masking • Acoustics • Stage • Decorative/Scenic • Film and TV

J&C Joel™

Inspiration in every performance

www.jcjoel.com

Contents

J&C Joel
Inspiration in every performance

TECHNICAL

NDFR
Non Durably Flame Retardant
chemically treated with a water solution and if wetted in any way should be retreated

DFR
Durably Flame Retardant
chemically treated to withstand a number of cleanings

IFR
Inherently Flame Retardant
woven from fibres with a high flame retardancy

FR
Flame Retardant
chemically treated to an individual specification

NOT FR
Not Flame Retardant no flame retardant treatment

Confirmation that the fabric meets one or more flame retardant standards

BS5867 BS5867 Pt2 B is the British Standard for flame retardant fabrics used for curtains and drapes

BS5852 BS5852 Pt1 is the British Standard for flammability of upholstered composites for seating

BS4790 BS4790: 1987 Determination of the effects of a small source of ignition on textile floor coverings hot metal nut method (method 1, loose laid)

EN13773: 2003 Meets European fire safety standards for vertically hung fabrics. Burning behavior, ignitability testing of curtain fabric for use in the contract market.

TL 1080-0002/8 German Military Specification for horizontally tested materials

EN14041 Details the requirement for CE Marking of textiles, laminate and resilient floor coverings

BS7905-1:2001 Lifting equipment for performance, broadcast and similar applications.

ATTRIBUTES

Approx roll length of material in linear metres (m) & feet (ft)

Approx width of material in centimetres (cm) & inches (")

Approx weight in grams per metre squared (g/m^2)

Approx thickness in (mm)

M1, M2, M4 Conforms to French Fire Regulations

B1, B2 Conforms to German Fire Regulations DIN 4102

IMO Conforms to International Maritime Organisation regulations

Classe Uno Meets Italian Fire Regulations

BS EN13501-1 Fire Classification of construction, products and building elements. Classification using test data from reaction to fire tests

CFC EN ISO 9239-1 Reaction to fire test. Horizontal surface spread of flame on floor covering system. Determination of the burning behaviour using a retardant heat source

NFPA 701 NFPA 701: (USA) Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

EN9239-1 Reaction to fire tests – horizontal surface spread of flame on floor covering systems

DIN EN1021 Meets European fire safety standards for exposure to different ignition sources, namely a lit cigarette and butane flame. Assessment of the ignitability of upholstered furniture

United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com

Datasheet - Fabrics and Flooring

Wool Serge 3.0

J&C Joel
Inspiration in every performance

To ensure you get the best from the product supplied to you, we advise you follow the care instructions within this datasheet.

Fabric	**Flame Retardancy**	IFR
	Fire Certification	BS5867 Part 2 Type B
	Brand Name (and Manufacturer)	J&C Joel Ltd.
	Material (Blending Ratio)	90% Recycled Wool, 5% New Wool, 5% Nylon & Other Fibres
	Construction of Fabric	N/A
Chemicals	**Surface Treatments**	N/A
	Brand Name of Flame Retardant Chemicals	N/A
	Chemical name of Flame Retardant Chemicals	N/A
	Process of Flame Retardant Chemicals	N/A
Care	**Information**	Inherently Flame Retardant to BS5867. This means that the man-made fibres are flame retardant for life and if wet, would not need to be re-flame-proofed. Therefore, the cloth will withstand wet cleaning but we would advise and suggest professional dry cleaning only, using the correct chemical process. Notwithstanding the aforementioned, it would be our advice to only dry clean this material periodically. We would suggest that the curtain be soft-brushed on a regular basis and periodically cleaned using a vacuum and drapery attachment.
	Laundering Treatment	 Dry Clean Only · Do Not Wash · Do Not Bleach · Cool Iron Only · Do Not Tumble Dry
Notes		

Fire Rating:
IFR

Approx Roll Length:
30m / 98ft

Width:
300cm / 118”

Weight:
565 g/m^2

Fire Certification:
BS5867

Colour Available
1

Fabric Thickness
1.90mm

United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com

Fire Test Certificate - Specimen

Fabric: Wool Serge 3.0
Type: BS5867

J&C Joel
Inspiration in every performance

BTTG
TESTING • CERTIFICATION • AUDITING

Confidential Report

Our Ref: 23/61733/01/24

ilac-MRA UKAS TESTING 1066

UK Europe Middle East Vietnam Macau Hong Kong

United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com

Fire Test Certificate - Specimen

Fabric: Wool Serge 3.0
Type: BS5867

J&C Joel
Inspiration in every performance

BTTG
TESTING • CERTIFICATION • AUDITING

Wira House, West Park Ring Road, Leeds, LS16 6QL, UK.
Telephone: +44 (0) 113 259 1999
Email: onestopshop@bttg.co.uk
Website: www.bttg.co.uk

Date: 30 January 2024

Our Ref: 23/61733/01/24
Your Ref: 74391

Client: **J. & C. Joel Ltd**

Corporation Mill
Corporation Street
Sowerby Bridge
Halifax
HX6 2QQ

Job Title: Fire Test on One Fabric Sample

Clients Order Ref: 74391

Date of Receipt: 25 January 2024

Date Test Started: 29 January 2024

Description of Sample: One sample of fabric, which was referenced by the client as;

WS 300, 300cm Wool Serge/IFR, 100% Wool

Work Requested: We were asked to make the following fire test:

BS 5867:Part 2:Type B:2008 (2015)

* subcontracted test, UKAS accredited
** subcontracted test, EN ISO/IEC 17025 accredited
*** not UKAS accredited

Note: This report relates only to the items tested.

ilac-MRA UKAS TESTING 1060

Fire Test Certificate - Specimen

Fabric: Wool Serge 3.0
Type: BS5867

J&C Joel
Inspiration in every performance

Wira House, West Park Ring Road, Leeds, LS16 6QL, UK.
Telephone: +44 (0) 113 259 1999
Email: onestopshop@bttg.co.uk
Website: www.bttg.co.uk

Date: 30 January 2024

Our Ref: 23/61733/01/24
Your Ref: 74391

Client: J. & C. Joel Ltd

BS 5867: Part 2: 2008 (2015): Type B Curtains, Drapes and Blinds

Conditioning

The test specimens were conditioned for at least 24 hours in the standard atmosphere of 65 ± 5 % relative humidity and 20 ± 2 °C.

Testing as received

Three specimens from both length and width were tested in accordance with BS EN ISO 15025:Procedure A (surface ignition):2002. The sample was tested at 21°C and 66% relative humidity.

Each specimen was subjected to an applied flame using propane and a 15 second flame application time. The results obtained (shown in the table below) were assessed according to the requirements of BS 5867:Part 2:Type B:2008 (2015).

Pre-treatment

If the fabric is a pass in the 'as received' condition then the fabric is subjected a water soak and drying procedure as specified in BS EN 1021-1 & 2:Annex D:2006.

Testing after pre-treatment

Three specimens, after pre-treatment, from both length and width were tested following the procedure described above.

ilac-MRA UKAS TESTING 1066

Fire Test Certificate - Specimen

Fabric: Wool Serge 3.0

Type: BS5867 Part 2: Type B

J&C Joel

Inspiration in every performance

Wira House, West Park Ring Road, Leeds, LS16 6QL, UK.
Telephone: +44 (0) 113 259 1999
Email: onestopshop@bttg.co.uk
Website: www.bttg.co.uk

Date: 30 January 2024

Our Ref: 23/61733/01/24
Your Ref: 74391

Client: J. & C. Joel Ltd

Results - Testing as Received:

	Length			Width		
Specimen No.	1	2	3	4	5	6
Flame reached an edge	No	No	No	No	No	No
Hole reached an edge	No	No	No	No	No	No
Flaming debris separated	No	No	No	No	No	No
Afterflame (s)	0	0	0	0	0	0
Afterglow (s)	0	0	0	0	0	0

Requirements - Any "Yes" means fail except if only one specimen fails a further 6 specimens are tested, if the second 6 specimens all pass the result is a pass.

Result in 'as received': Pass

Results - Testing after pre-treatment:

	Length			Width		
Specimen No.	1	2	3	4	5	6
Flame reached an edge	No	No	No	No	No	No
Hole reached an edge	No	No	No	No	No	No
Flaming debris separated	No	No	No	No	No	No
Afterflame (s)	0	0	0	0	0	0
Afterglow (s)	0	0	0	0	0	0

Requirements - Any "Yes" means fail except if only one specimen fails a further 6 specimens are tested, if the second 6 specimens all pass the result is a pass.

Result in 'after pre-treatment': Pass

ilac-MRA UKAS TESTING 1066

Fire Test Certificate - Specimen

Fabric: Wool Serge 3.0
Type: BS5867

J&C Joel
Inspiration in every performance

Wira House, West Park Ring Road, Leeds, LS16 6QL, UK.
Telephone: +44 (0) 113 259 1999
Email: onestopshop@bttg.co.uk
Website: www.bttg.co.uk

Date: 30 January 2024

Our Ref: 23/61733/01/24
Your Ref: 74391

Client: J. & C. Joel Ltd

Comment

The fabric meets the Type B performance requirements of BS 5867: Part 2: Type B:2008 (2015).

This material should be identified with the manufacturers name, trademark or other identifying mark, the statement 'Flammability complies with the requirements of BS 5867: Part 2:Type B and instructions of any special precautions to be taken concerning care (including cleansing) of the curtain, drape or window blind to be manufactured from the fabric, preferably using an appropriate care labelling symbol in accordance with BS EN 23758 and taking account of the pre-treatment using in this test and the requirements of Clause 4 of BS 5867:Part 2:2008 (2015). If the fabric is unsuitable for cleansing, this shall be stated.

Where required to make a judgement to any pass/fail criteria an estimation of uncertainty of measurement has been taken into account. Under our Policy we have used a non-binary decision rule.

See our decision rules Policy (https://www.bttg.co.uk/about-us/decision-rules-policy/) for further information.

Uncertainty Budget

Measurements are not taken and pass/fail is related to flame extremities and flaming debris, as such any risk of false acceptance/false rejection is inherent with this standard and would be outside of 95% probability in any case. As such UoM is Zero providing all input parameters are correct.

There is no uncertainty budget associated with BS 5867:Part 2:Type B as no measurements are determined , the pass/fail criteria is assessed visually.

Reported by:..... R Greasley, Laboratory Technician

Countersigned by:..... B Bland, Technical Customer Service Officer

Enquiries concerning this report should be addressed to Customer Services.

1066

Acoustic Test Report - Absorption

Absorption Class: D
Calculated to EN ISO 11654:1997

Fabric: Wool Serge 3.0

Fulness: Flat

Cavity from wall: 100mm

J&C Joel
Inspiration in every performance

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: Wool Serge 565 - Single Layer – Flat (Approx. weight 565g/m²) – 100mm cavity from wall

Mounting Method: G-100

Sample Area: 9 m2

Chamber Volume: 300 m3

	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*	5.85	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	

α_w 0.55(MH)

Class D

Calculated to EN ISO 11654:1997

NRC 0.60

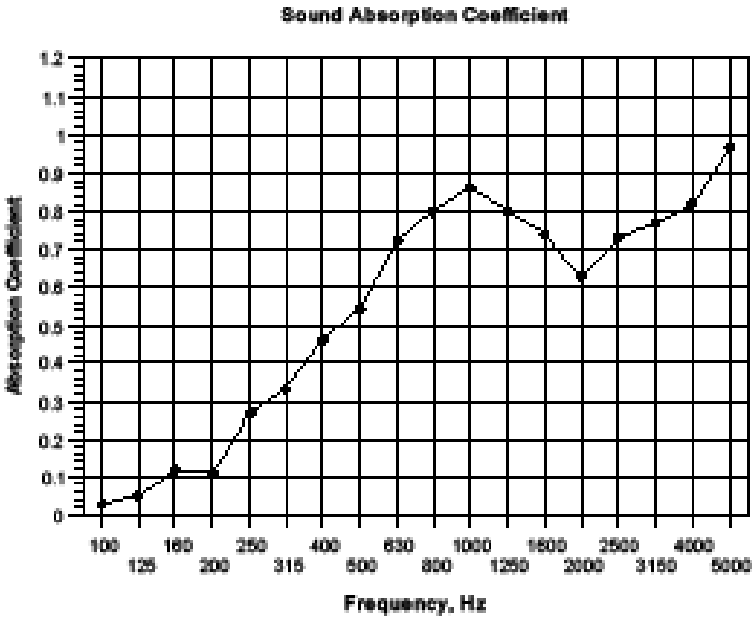
Calculated to ASTM C 423-01

*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



United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com

Acoustic Test Report - Absorption

Absorption Class: C
Calculated to EN ISO 11654:1997

Fabric: Wool Serge 3.0

Fulness: Flat

Cavity from wall: 350mm

J&C Joel
Inspiration in every performance

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: Wool Serge 565 - Single Layer – Flat (Approx. weight 565g/m²) – 350mm cavity from wall

Mounting Method: G-350

Sample Area: 9 m2

Chamber Volume: 300 m3

	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*	6.86	6.00	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*	1.65	1.16	1.09	
8000*	1.35	0.98	1.13	n/a
10000*	0.93	0.69	1.36	

α_w 0.70(H)

Class C

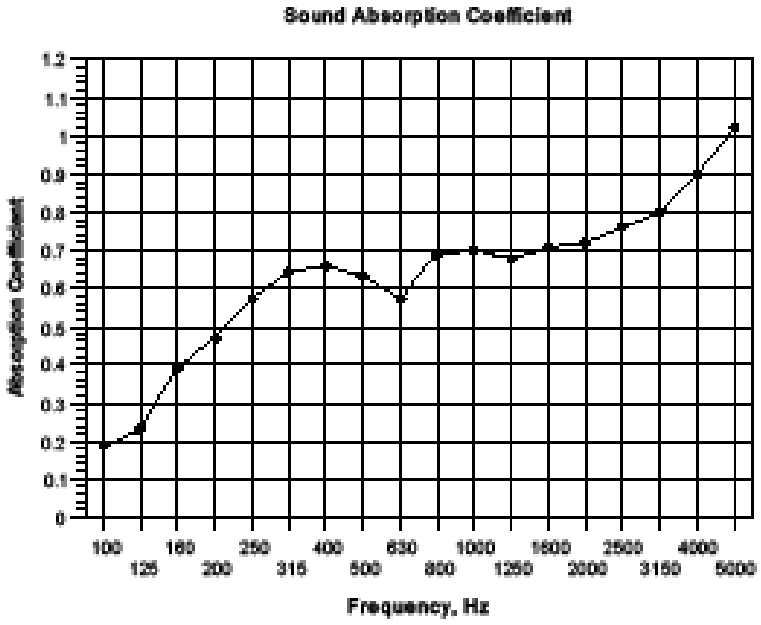
Calculated to EN ISO 11654:1997

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

United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com

Acoustic Test Report - Absorption

Absorption Class: B
Calculated to EN ISO 11654:1997

Fabric: Wool Serge 3.0

Fulness: 50%

Cavity from wall: 100mm

J&C Joel
Inspiration in every performance

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: Wool Serge 565 – Single Layer – 50% fullness (Approx. weight 565g/m²) – 100mm cavity from wall

Mounting Method: G-100

Sample Area: 9 m2

Chamber Volume: 300 m3

	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*	5.66	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	1.26	
8000*	1.35	0.94	1.30	n/a
10000*	0.93	0.66	1.62	

α_w 0.80(H)

Class B

Calculated to EN ISO 11654:1997

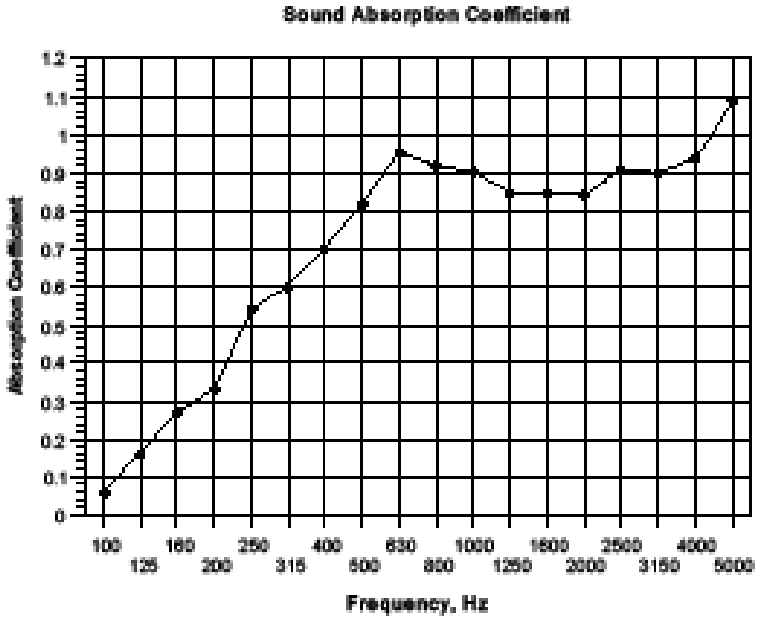
NRC 0.80

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



United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com

Acoustic Test Report - Absorption

Absorption Class: B
Calculated to EN ISO 11654:1997

Fabric: Wool Serge 3.0

Fulness: 50%

Cavity from wall: 350mm

J&C Joel
Inspiration in every performance

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: Wool Serge 565 – Single Layer – 50% fullness (Approx. weight 565g/m²) – 350mm cavity from wall

Mounting Method: G-350

Sample Area: 9 m2

Chamber Volume: 300 m3

	Test 15			
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
*50**	*5.07*	*4.66*	*0.04*	
*63**	*4.60*	*4.17*	*0.12*	*n/a*
*80**	*5.66*	*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*	*1.06*	*1.32*	
*8000**	*1.36*	*0.84*	*1.21*	*n/a*
*10000**	*0.93*	*0.66*	*1.60*	

α_w 0.85(H)

Class B

Calculated to EN ISO 11654:1997

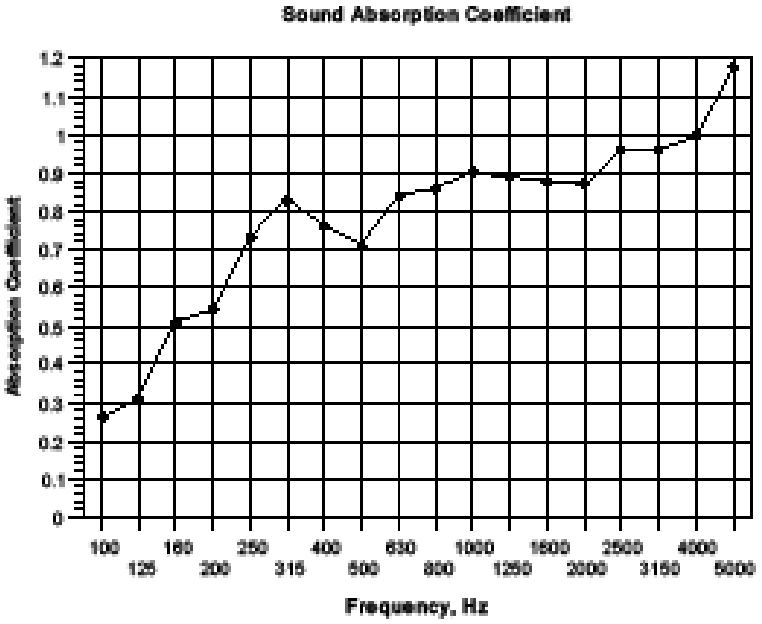
NRC 0.80

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



United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com

Acoustic Test Report - Absorption

Absorption Class: A
Calculated to EN ISO 11654:1997

Fabric: Wool Serge 3.0

Fulness: 100%

Cavity from wall: 100mm

J&C Joel
Inspiration in every performance

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: Wool Serge 565 – Single Layer – 100% fullness (Approx. weight 565g/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	Practical Absorp Coeff #
50*	6.07	6.35	-0.05	
63*	4.60	3.67	0.30	n/a
80*	6.66	6.36	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	1.26	
8000*	1.36	0.95	1.24	n/a
10000*	0.93	0.67	1.60	

α_w 0.90

Class A

Calculated to EN ISO 11654:1997

NRC 0.85

Calculated to ASTM C 423-01

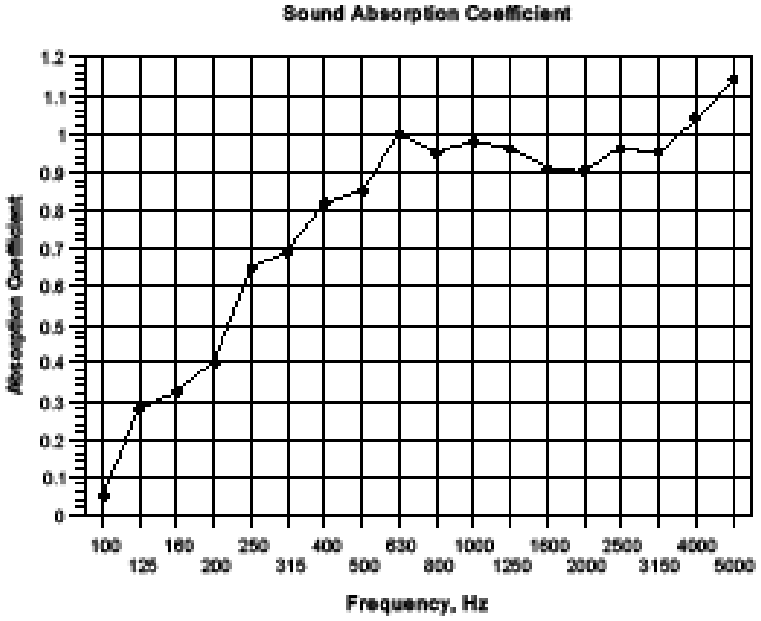
*Denotes frequencies outside the range covered by BS EN ISO 354:2003

T1, empty room reverberation time

T2, room reverberation time with sample

Practical absorption coefficient, BS EN ISO 11654:1997

v03



United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com

Acoustic Test Report - Absorption

Absorption Class: A
Calculated to EN ISO 11654:1997

Fabric: Wool Serge 3.0

Fulness: 100%

Cavity from wall: 100mm

J&C Joel
Inspiration in every performance

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: Wool Serge 565 – Single Layer – 100% fullness (Approx. weight 565g/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	Practical Absorp Coeff #
50*	5.07	4.93	0.03	
63*	4.60	3.72	0.26	n/a
80*	6.66	6.22	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	5.36	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	1.06	1.39	
8000*	1.35	0.93	1.36	n/a
10000*	0.93	0.67	1.60	

α_w 0.90

Class A

Calculated to EN ISO 11654:1997

NRC 0.85

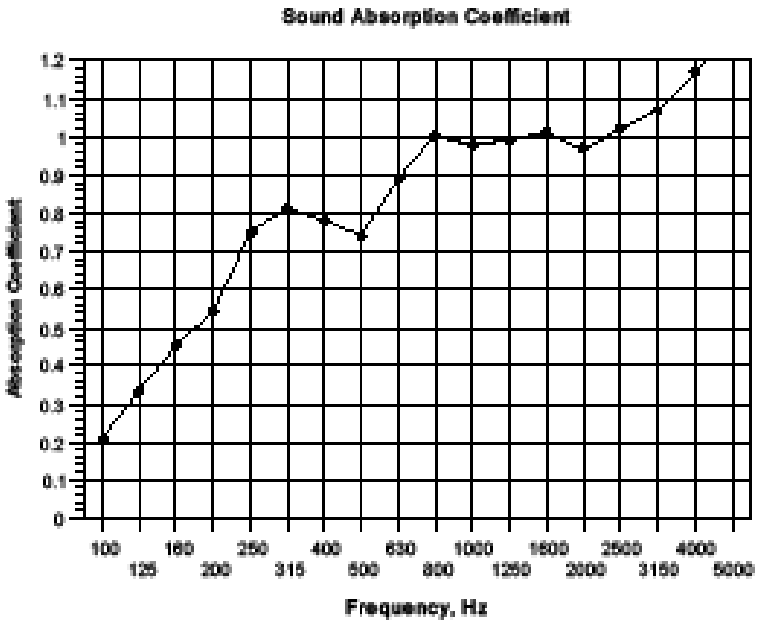
Calculated to ASTM C 423-01

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

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

Practical absorption coefficient, BS EN ISO 11654:1997

v03



United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com

United Kingdom
+44 1422 833835
uksales@jcjoel.com

United Arab Emirates
+971 4 884 7801
menasales@jcjoel.com

www.jcjoel.com