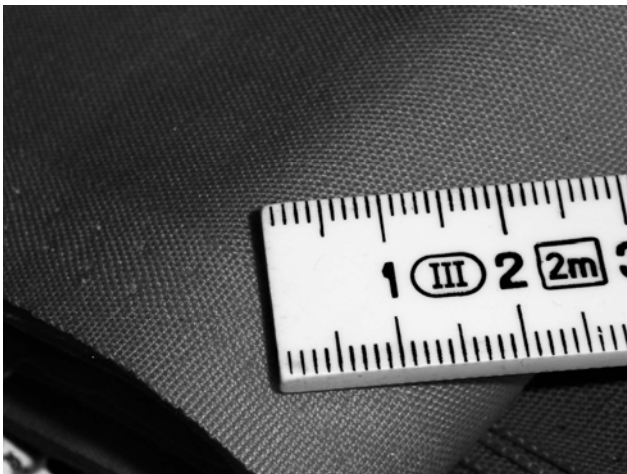


ACOUSTIC ABSORPTION MEASUREMENT PROTOCOL (ISO 354, ISO 11654)

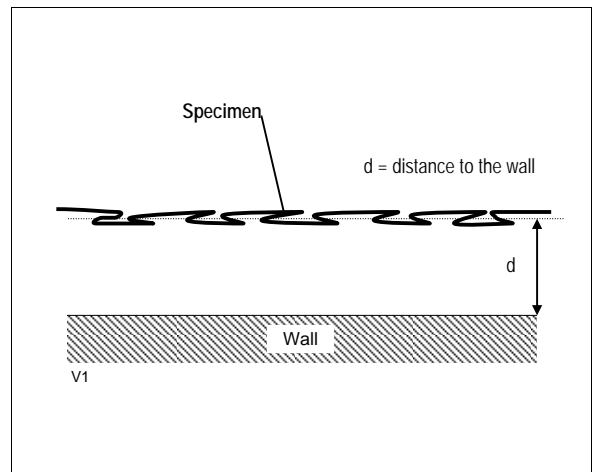
Specifications

Manufacturer	Création Baumann - Weberei und Färberei AG - CH-4901 Langenthal (Switzerland)		
Product name	ULTRA IV		
Remarks, configuration	Decoration fabric Measurement configuration: curtain draped by 100 %, distance to the wall d = 15 cm		
Set-up (acc. ISO 354/Amd 1:1997)	Type G-150	No. of measurements	3 each microphone
Probe area	13.5 m ²	No. of used microphone	10
Temperature	19.6 °C	Used acoustic Signal	White noise
Relative Humidity	55.7 % r.H.	Empty room measurement	Interpolated values
Volume of the reverberation chamber	214.3 m ³	EEC Order No.	8727
Measurement No. / Date / Time	13 / 27.05.2003 / 9h30'	Archive filename	ULTRA_01.ABS

EUT identification

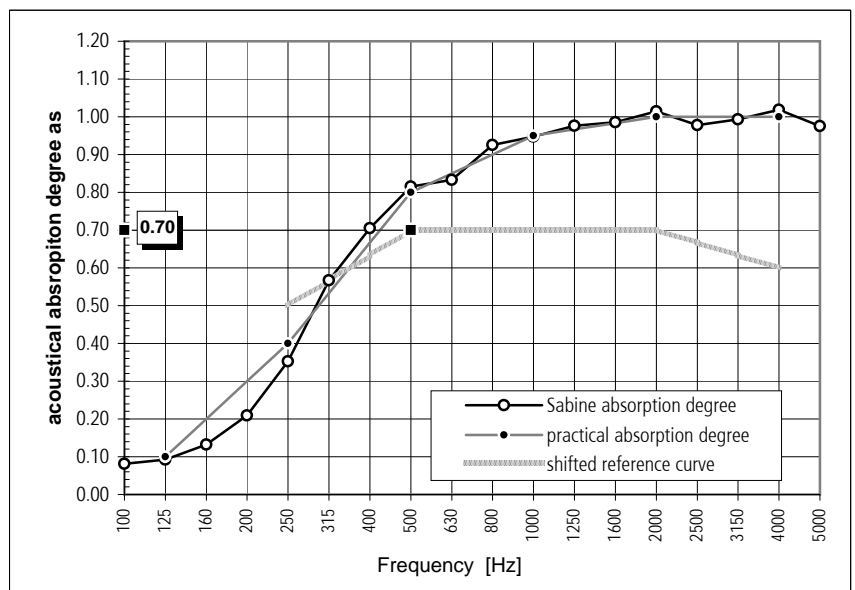


Test set-up



Measurement results (acc. ISO 354, ISO 11654)

Freq. [Hz]	T ₁	T ₂	α _s	α _{pi}	α _w
100	20.07	12.27	0.08		0.10
125	18.40	11.07	0.09		
160	14.96	8.44	0.13		
200	12.14	6.09	0.21		
250	11.08	4.39	0.35	0.40	
315	9.77	3.09	0.57		0.80
400	8.03	2.50	0.71		
500	8.45	2.29	0.82	0.80	0.70 (MHH)
630	8.11	2.23	0.83		
800	7.62	2.03	0.93	0.95	Class "C"
1'000	7.00	1.95	0.95	0.95	
1'250	6.05	1.83	0.98		1.00
1'600	5.45	1.76	0.99		
2'000	4.76	1.65	1.01	1.00	1.00
2'500	4.25	1.62	0.98		
3'150	3.64	1.51	0.99		1.00
4'000	3.01	1.37	1.02	1.00	
5'000	2.39	1.25	0.98		



LEGEND

T₁ = Reverberation time of the empty room
T₂ = Reverberation time with the test specimen

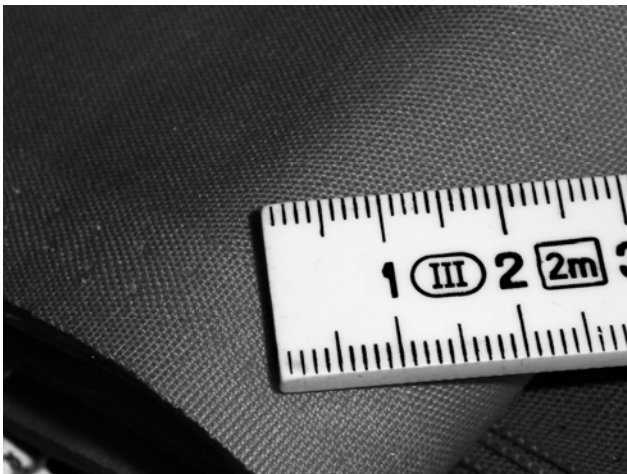
α_s = Sabine absorption degree
α_{pi} = practical absorption degree
α_w = assessed absorption degree

ACOUSTIC ABSORPTION MEASUREMENT PROTOCOL (ISO 354, ISO 11654)

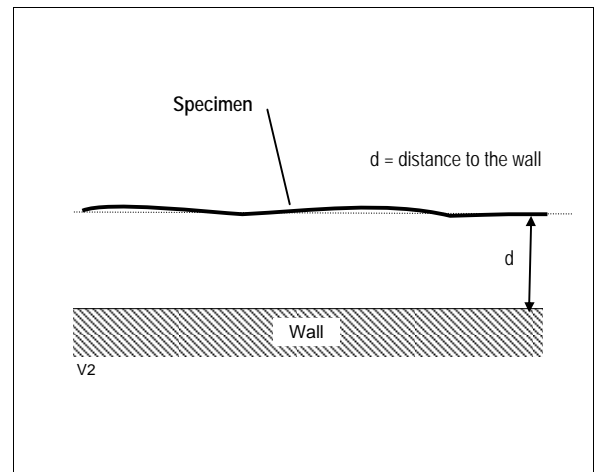
Specifications

Manufacturer	Création Baumann - Weberei und Färberei AG - CH-4901 Langenthal (Switzerland)	
Product name	ULTRA IV	
Remarks, configuration	Decoration fabric Measurement configuration: curtain panels, distance to the wall d = 15 cm	
Set-up (acc. ISO 354/Amd 1:1997)	Type G-150	No. of measurements 2 each microphone
Probe area	13.5 m ²	No. of used microphone 10
Temperature	19.5 °C	Used acoustic Signal White noise
Relative Humidity	56.1 % r.H.	Empty room measurement Measured values
Volume of the reverberation chamber	214.3 m ³	EEC Order No. 8727
Measurement No. / Date / Time	14 / 27.05.2003 / 10h00'	Archive filename ULTRA_02.ABS

EUT identification

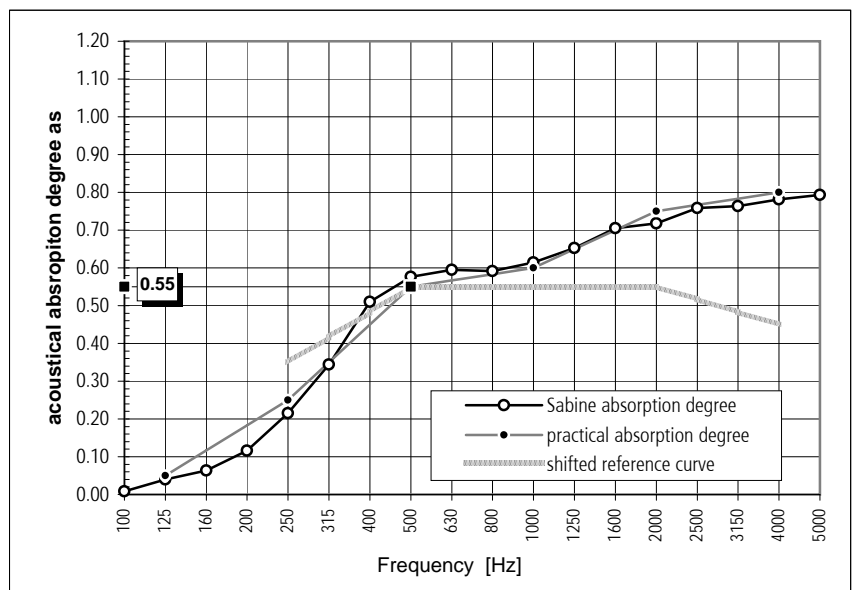


Test set-up



Measurement results (acc. ISO 354, ISO 11654)

Freq. [Hz]	T ₁	T ₂	α _s	α _{pi}	α _w
100	20.07	18.87	0.01		0.05
125	18.41	14.34	0.04		
160	15.10	11.00	0.06		
200	12.16	7.84	0.12		
250	11.09	5.74	0.22	0.25	
315	9.70	4.21	0.34		0.55
400	8.03	3.09	0.51		
500	8.42	2.91	0.58	0.55	0.55 (H) Class "D"
630	8.08	2.81	0.59		
800	7.61	2.76	0.59		0.60
1'000	6.98	2.61	0.61	0.60	
1'250	6.04	2.38	0.65		0.75
1'600	5.45	2.18	0.71		
2'000	4.76	2.04	0.72	0.75	0.80
2'500	4.24	1.88	0.76		
3'150	3.66	1.75	0.76		
4'000	3.05	1.58	0.78	0.80	
5'000	2.41	1.38	0.79		



LEGEND

T₁ = Reverberation time of the empty room
T₂ = Reverberation time with the test specimen

α_s = Sabine absorption degree
α_{pi} = practical absorption degree
α_w = assessed absorption degree