

Dieses Zertifikat ist für folgende Produkte gültig:

This certificate is valid for the following products:

- Universal III
- Universal IV

## ACOUSTIC ABSORPTION MEASUREMENT PROTOCOL (ISO 354, ISO 11654)

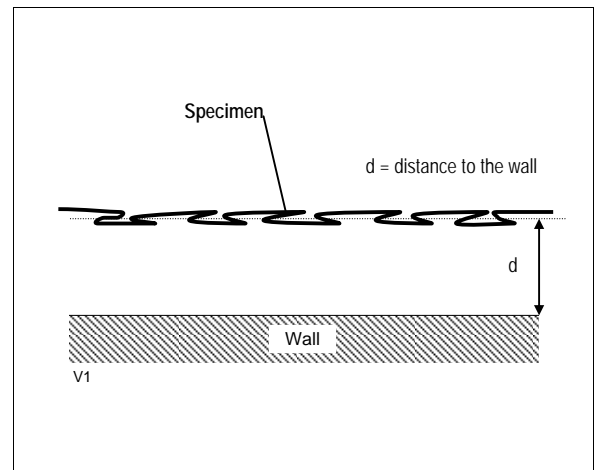
### Specifications

Manufacturer Product name Remarks, configuration	<b>Création Baumann - Weberei und Färberei AG - CH-4901 Langenthal (Switzerland)</b> <b>UNIVERSAL III</b> Decoration fabric, composition 100% PLF Measurement configuration: curtain draped by 100%, distance to the wall $d = 15$ cm	
Set-up (acc. ISO 354/Amd 1:1997) Probe area Temperature Relative Humidity Volume of the reverberation chamber Measurement No. / Date / Time	Type G-150 $3.75 \times 3.00 = 11.25 \text{ m}^2$ 19.5 °C 43.0 % r.H. $214.3 \text{ m}^3$ Nr. 01 / 27.04.2004/ 09h00'	No. of measurements 3 each microphone No. of used microphone 10 Used acoustic Signal White noise Empty room measurement Measured values EEC Order No. 10322 Archive filename UNIV3_01.ABS

### EUT identification

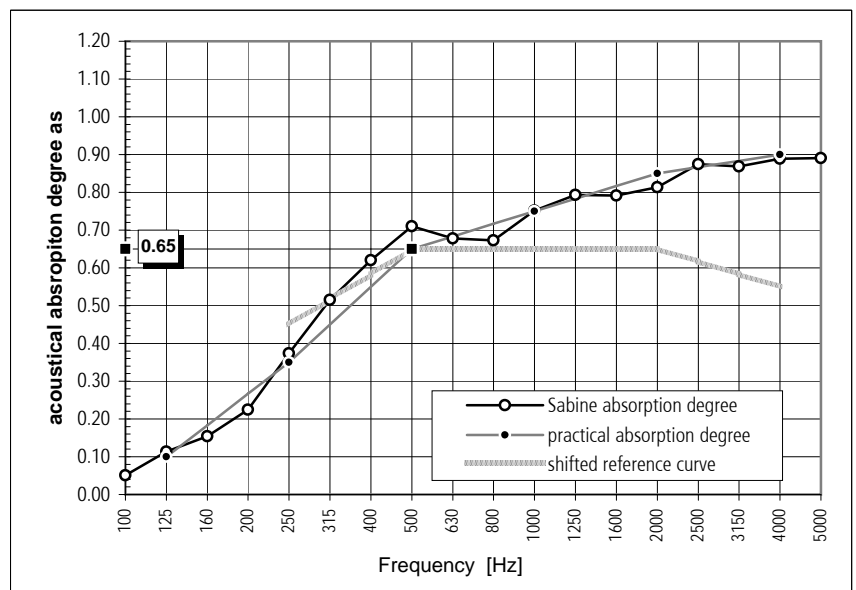


### Test set-up



### Measurement results (acc. ISO 354, ISO 11654)

Freq. [Hz]	T <sub>1</sub>	T <sub>2</sub>	$\alpha_s$	$\alpha_{pi}$	$\alpha_w$
100	19.93	15.00	0.05		0.10
125	18.83	11.11	0.11		
160	14.12	8.26	0.15		
200	11.50	6.25	0.22		
250	10.86	4.68	0.37	0.35	
315	9.87	3.72	0.51		0.65 (H)
400	7.94	3.05	0.62		
500	8.52	2.87	0.71	0.65	
630	8.13	2.91	0.68		
800	7.86	2.89	0.67		
1'000	7.07	2.59	0.75	0.75	Class "C"
1'250	5.97	2.35	0.79		
1'600	5.24	2.23	0.79		
2'000	4.63	2.08	0.81	0.85	
2'500	3.95	1.86	0.87		
3'150	3.31	1.71	0.87		0.90
4'000	2.68	1.51	0.89		
5'000	2.01	1.27	0.89		



**Error :** 100 - 315 Hz : 5.60%    400 - 1250 Hz : 2.19%    1600 - 5000 Hz : 1.77%

**LEGEND**

T<sub>1</sub> = Reverberation time of the empty room  
 T<sub>2</sub> = Reverberation time with the test specimen

$\alpha_s$  = Sabine absorption degree  
 $\alpha_{pi}$  = practical absorption degree  
 $\alpha_w$  = assessed absorption degree

**ACOUSTIC ABSORPTION MEASUREMENT PROTOCOL (ISO 354, ISO 11654)**

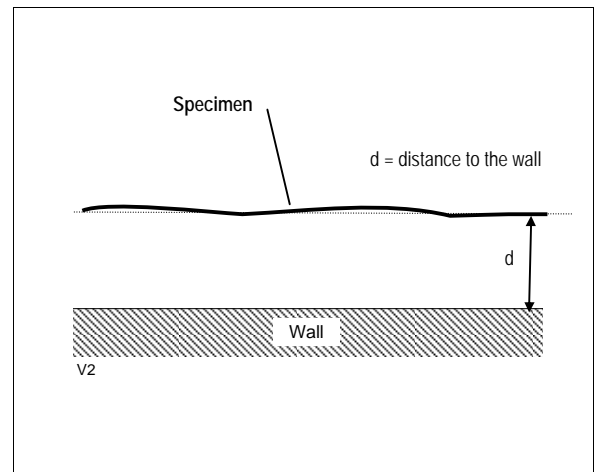
**Specifications**

Manufacturer	<b>Création Baumann - Weberei und Färberei AG - CH-4901 Langenthal (Switzerland)</b>	
Product name	<b>UNIVERSAL III</b>	
Remarks, configuration	Decoration fabric, composition 100% PLF 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 3 each microphone
Probe area	4.50 x 3.00 = 13.50 m <sup>2</sup>	No. of used microphone 10
Temperature	19.3 °C	Used acoustic Signal White noise
Relative Humidity	43.2 % r.H.	Empty room measurement Interpolated values
Volume of the reverberation chamber	214.3 m <sup>3</sup>	EEC Order No. 10322
Measurement No. / Date / Time	Nr. 02 / 27.04.2004/ 09h30'	Archive filename UNIV3_02.ABS

**EUT identification**

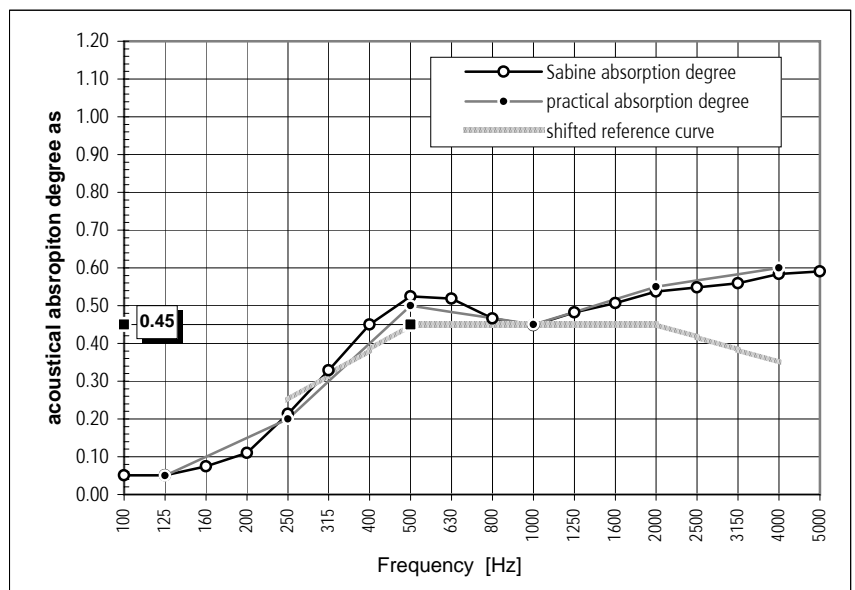


**Test set-up**



**Measurement results (acc. ISO 354, ISO 11654)**

Freq. [Hz]	T <sub>1</sub>	T <sub>2</sub>	α <sub>s</sub>	α <sub>pi</sub>	α <sub>w</sub>
100	19.98	14.28	0.05		0.05
125	19.03	13.80	0.05		
160	14.26	10.07	0.07		0.20
200	11.48	7.69	0.11		
250	10.95	5.72	0.21		0.50
315	9.89	4.36	0.33		
400	8.03	3.33	0.45		0.45 (H) Class "D"
500	8.50	3.10	0.52		
630	8.12	3.07	0.52		0.45
800	7.83	3.23	0.47		
1'000	7.07	3.16	0.45		0.55
1'250	6.01	2.82	0.48		
1'600	5.27	2.58	0.51		0.60
2'000	4.63	2.35	0.54		
2'500	3.98	2.15	0.55		0.60
3'150	3.31	1.92	0.56		
4'000	2.67	1.66	0.58		
5'000	2.05	1.39	0.59		



**Error :** 100 - 315 Hz : 4.87%    400 - 1250 Hz : 2.21%    1600 - 5000 Hz : 1.97%

**LEGEND**

T<sub>1</sub> = Reverberation time of the empty room  
T<sub>2</sub> = Reverberation time with the test specimen

α<sub>s</sub> = Sabine absorption degree  
α<sub>pi</sub> = practical absorption degree  
α<sub>w</sub> = assessed absorption degree