



## Acoustic Foam Laminate

TAP Acoustic Laminates combine the three acoustic properties of absorption, damping and blocking within a single material, making them suitable for a wide variety of applications. The multi-purpose nature of acoustic laminates makes them suitable for both remedial or purpose built noise reduction applications.

The principle of Acoustic Laminates is as follows:

- The absorptive layer reduces reverberant noise.
- The barrier layer blocks transmitted noise
- The spacer layer isolates the barrier from the structure, therefore improving its performance by reducing sound wave transmission.

(Facings generally reduce high frequency acoustic absorption, but have only a marginal effect on overall performance)

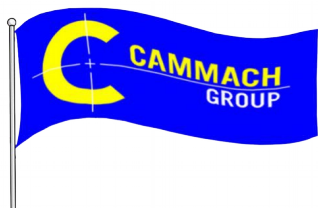
A typical Acoustic Laminate would comprise;

- Class O foam - space layer.
- 5kg/m<sup>2</sup> or 10kg/m<sup>2</sup> polymeric barrier or lead
- Class O foam – absorptive layer



Class O Foam	
Density kg/m <sup>2</sup>	100
Operating Temperature	-40°C to 100°C
Building Regulation	Class O
Fire performance	BS476 Part 5,6 & 7 FMVSS 302 Self extinguishing





# Acoustic Foam Laminate

## Acoustic Data – Transmission loss dB

Frequency Hz

Laminate 5kg/m<sup>2</sup> 25mm thickness  
 12F/5B/12F  
 12mm Class O foam, 5kg/m<sup>2</sup> barrier  
 12mm Class O foam

Laminate 10kg/m<sup>2</sup> 25mm thickness  
 12F/10B/12F  
 12mm Class O foam, 10kg/m<sup>2</sup> barrier  
 12mm Class O foam.

Laminate 5kg/m<sup>2</sup> 50mm thickness  
 25F/5B/25F  
 25mm Class O foam, 5kg/m<sup>2</sup> barrier,  
 25mm Class O foam

Laminate 10kg/m<sup>2</sup> 50mm thickness  
 25F/10B/25F  
 25mm Class O foam, 10kg/m<sup>2</sup> barrier,  
 25mm Class O foam

	63	125	250	500	1000	2000	4000
Laminate 5kg/m <sup>2</sup> 25mm thickness 12F/5B/12F 12mm Class O foam, 5kg/m <sup>2</sup> barrier 12mm Class O foam	7.3	14.0	16.8	19.0	23.5	28.1	33.2
Laminate 10kg/m <sup>2</sup> 25mm thickness 12F/10B/12F 12mm Class O foam, 10kg/m <sup>2</sup> barrier 12mm Class O foam.	9.4	16.1	18.0	21.0	23.9	28.5	28.5
Laminate 5kg/m <sup>2</sup> 50mm thickness 25F/5B/25F 25mm Class O foam, 5kg/m <sup>2</sup> barrier, 25mm Class O foam	7.6	14.6	17.2	21.5	26.2	31.1	36.8
Laminate 10kg/m <sup>2</sup> 50mm thickness 25F/10B/25F 25mm Class O foam, 10kg/m <sup>2</sup> barrier, 25mm Class O foam	10.5	16.3	19.4	23.4	26.4	31.4	31.3

Absorption Coefficient ISO  
 (random incidence)

Frequency Hz

Laminate 19mm thickness  
 Absorption Coefficient

Laminate 33mm thickness  
 Absorption Coefficient

	125	250	500	1000	2000	4000	NRC
Laminate 19mm thickness Absorption Coefficient	0.08	0.14	0.22	0.32	0.40	0.53	0.27
Laminate 33mm thickness Absorption Coefficient	0.08	0.20	0.56	0.93	0.84	0.92	0.63

Note: The information and instructions provided in relation to our products are based on experimental and practical experience and are general recommendations. Local conditions can affect the results and as the qualification and experience of the personnel used in the installation is beyond the control of Cammach Group Ltd we do not take responsibility for the results obtained when using our products.

