

CI/SFB	July 2017		
Uniclass			
Issue 01			

# Monarfloor Absorption Panels

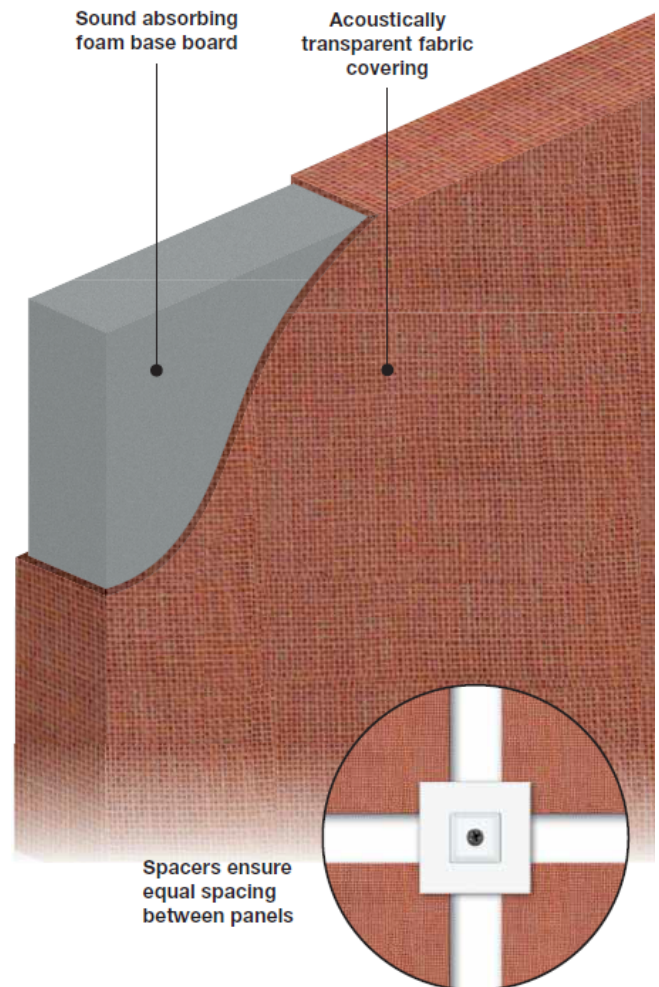
## Sound Protection

### Monarfloor Absorption Panels

Decorative acoustic panelling system. Monarfloor Absorption Panels absorb high levels of sound energy within a room creating a softer, more comfortable acoustic environment. Designed to control reverberant noise in schools and colleges (BB93), hospitals (HTM-08), multi-purpose halls and virtually any large volume spaces, Monarfloor Absorption Panels are specified to partially cover existing walls and can be used to create new design features or enhance existing architectural features.

### Features and Benefits

- **Ideal for use in most environments** – including theatres, assembly rooms, music rooms, lecture rooms, auditoriums, entrance halls, classrooms, canteens, sport halls and recording studios.
- **High sound absorption capacity.**
- **Flame retardant** – DIN 4102 (Bi) and BS476 (Class 1).
- **Large range of standard sizes.**
- **3 fabric finishes available** – each in a large range of colours.
- **Easy to install** – bonded to the wall using Monarfloor High Performance Acoustic Adhesive and/or spacers (other installation methods are available).
- **Lightweight** – 1250mm x 2500mm x 50mm only 1.76kg.



### Construction

Monarfloor Absorption Panels are manufactured from sound absorbing melamine resin and thermoset plastic open-cell foam base board covered with a high quality acoustically transparent fabric.

Monarfloor Absorption Panel Spacers are injection moulded plastic.



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Ref: ICO1903



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## Availability

Monarfloor Absorption Panels are supplied as a finished panel in the following standard sizes:

Panel Size	Thickness
1250mm x 2500mm	40mm or 50mm
1250mm x 1250mm	
625mm x 1250mm	
625mm x 625mm	

Other panel sizes and thicknesses to special order.

Monarfloor Absorption Panel Spacers are available in white only in 40mm and 50mm sizes.

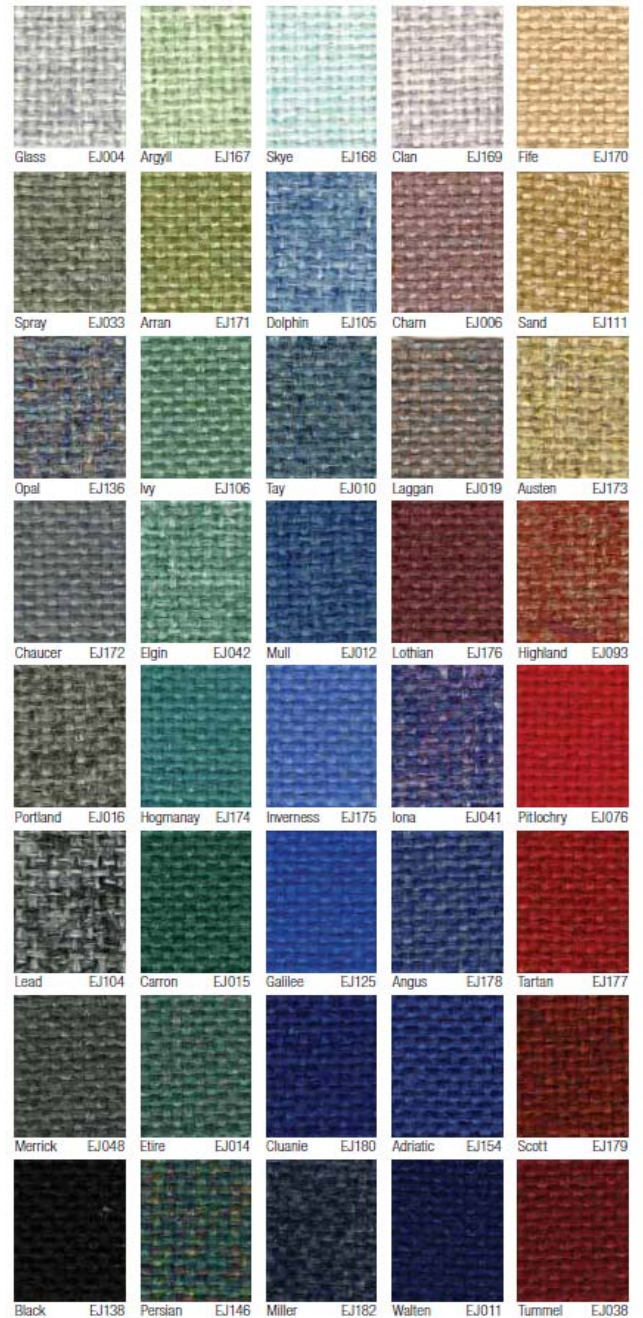
For further information and product samples contact us on **0161 866 6540**.

## Physical Properties of Base Foam

Property	Unit	Test Method	Value
Bulk density	kg/m <sup>3</sup>	EN ISO 845	8 - 11
Compressive strength (10% strain)	kPa	DIN 53421	4 - 20
Maximum ram force	N	BASF - method	≥45
Tensile strength	kPa	DIN 53471	>120
Elongation at break	%	DIN 53571	>10
Compressive strength (40%)	kPa	DIN 53577	6 - 20
Thermal conductivity (10°C/d=50mm)	W/mk	DIN 52612	<0.035
Compression set 50%/23°C/72h 50%/70°C/22h	%	DIN 53572	10 - 35 5 - 30
Length specific flow resistance	kNs/m <sup>4</sup>	DIN EN 29053	8 - 20
Long-term service temperature	°C	DIN 53421	Approx 150
Fogging behaviour	%	DIN 75210, Vert A	>90
	mg	DIN 75210, Vert B	<0.5
Fire characteristics	-	DIN 4102	B1
		DIN 54837	S1, SR2, ST2
		UL 94	94 V-0, 94 HF-1
		NF P 92-501	M1
		BS 476 Part 6/7	Class 0
		CSE RF 2/75/A	Category 1
		CSE RF 3/77	Category 1
		FAR 25 855	a-1 fulfilled
		ASTM E662-83	Fulfilled
		ABD 0031	Fulfilled
FMVSS 302	Fulfilled		

The values specified are based on individual preliminary tests.

## Cara Range – 100% Polyolefin



### Flammability

- EN 1021-1 Cigarette
- BS 476 Class 1



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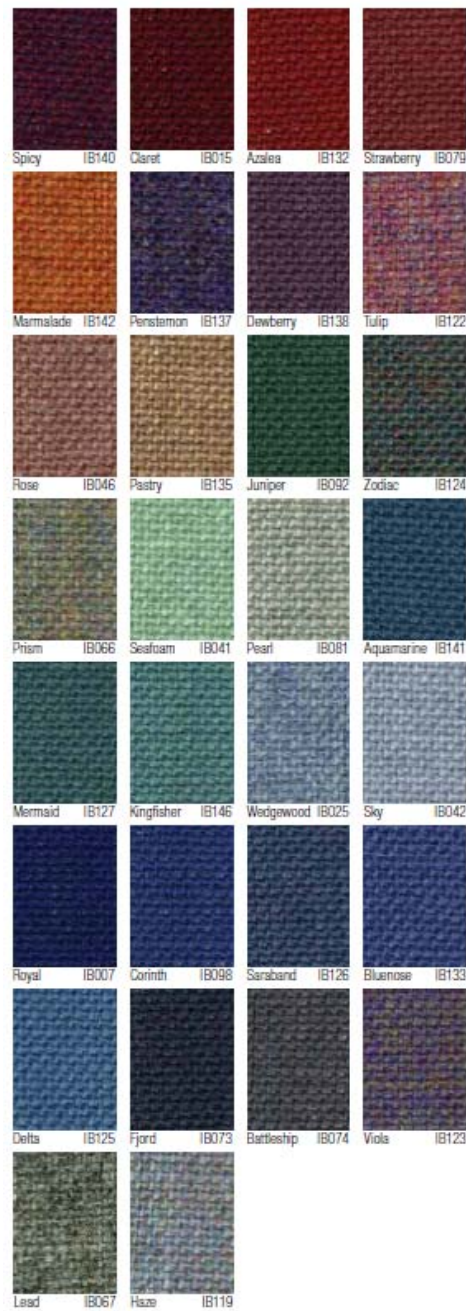
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## Lucia Range – 100% Recycled Polyester (non metallic dyestuffs)



- Flammability**
- EN 1021-1 Cigarette
  - EN 1021-2 Match
  - BS 7176 Low Hazard
  - BS 476 Class 1

## Screen Range – 60% Viscose, 40% Wool



- Flammability**
- BS 476 Class 1



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### Installation at a glance

- Monarfloor Absorption Panels can be fixed to the wall using Monarfloor Absorption Panel Spacers and/or bonded directly to walls using Monarfloor Adhesive.
- Prior to installation ensure walls and panels are free of dust or loose debris. Where bonded test bond to ensure compatibility.
- On the wall mark out surface guide lines for the location of the panels. when using panel spacers leave a minimum 50mm gap between panels.
- Fix a batten on the wall to support the first run of panels.
- Proceed to fix the panels along the length of the wall using specified fixing method.

For full details refer to our *Monarfloor Absorption Panels Installation Sheet* or visit [www.monarfloor.co.uk](http://www.monarfloor.co.uk)

### Cutting & Storage of Panels

Should any cutting be required on site then the fabric face and edges should be cut using a sharp utility knife and straight edge. The acoustic foam can then be cut using a utility saw. When cutting panel ensure appropriate PPE is used. Bespoke panels can be factory fabricated from site templates. Panels must be stored and installed at room temperatures. Refer to Monarfloor Technical Department for further details.

For full details refer to our *Monarfloor Absorption Panels Health & Safety Sheet*.

### Acoustic Performance

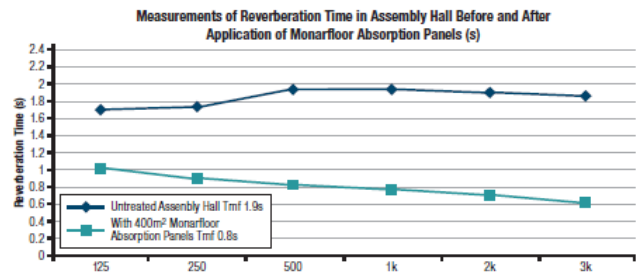
**Table 1 – Individual Sound Absorption Values** in third octave bands (according to DIN EN ISO 11654).

		Frequency (Hz)									
		100	125	160	200	250	315	400	500	630	
40mm	$\alpha_p$ Oct	0.15			0.40			0.75			
50mm	$\alpha_p$ Oct	0.20			0.55			1.00			
		800	1000	1250	1600	2000	2500	3150	4000	5000	
40mm	$\alpha_p$ Oct	0.95			1.00			1.00			
50mm	$\alpha_p$ Oct	0.90			1.00			1.03			

**Table 2 – Individual Sound Absorption Values and Sound Absorption Classes** depending on the thickness (according to DIN EN ISO 11654).

Basotect® G Thickness	Individual value $\alpha_w$ According to DIN EN ISO 11654	Sound absorption class according to Appendix B of DIN EN ISO 11654	Noise reduction coefficient NRC acc. To ASTM C 423
40mm	0.70 (M,H)	C	0.80
50mm	0.85 (H)	B	0.90

**Table 3 – Example of a before and after test carried out within a new build school.**



### Related products

**Monarfloor High Performance Acoustic Adhesive** for use with Monarfloor systems and as a general purpose adhesive.

For full details refer to individual *Monarfloor Adhesives Datasheets*.

### Technical Support

Monarfloor Acoustic Systems offers FREE technical advice and assistance on all aspects of acoustic systems.

We can also undertake site visits to provide contractors with advice and assistance at every stage of a project from concept to completion.



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