

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.



Sound Reduction Data Sheet

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.





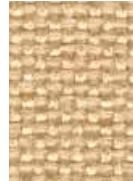
























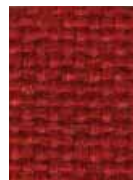










For further information and product samples contact us on **0161 866 6540**.

Physical Properties of Base Foam

Property	Unit	Test Method	Value
Bulk density	kg/m ³	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 ⁴	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

				
Glass EJ004	Argyll EJ167	Skye EJ168	Clan EJ169	Fife EJ170
				
Spray EJ033	Arran EJ171	Dolphin EJ105	Charn EJ006	Sand EJ111
				
Opal EJ136	Ivy EJ106	Tay EJ010	Laggan EJ019	Austen EJ173
				
Chaucer EJ172	Elgin EJ042	Mull EJ012	Lothian EJ176	Highland EJ093
				
Portland EJ016	Hogmanay EJ174	Inverness EJ175	Iona EJ041	Pitlochry EJ076
				
Lead EJ104	Carron EJ015	Galilee EJ125	Angus EJ178	Tartan EJ177
				
Merrick EJ048	Etire EJ014	Cluanie EJ180	Adriatic EJ154	Scott EJ179
				
Black EJ138	Persian EJ146	Miller EJ182	Walten EJ011	Tummel EJ038

Flammability

- EN 1021-1 Cigarette
- BS 476 Class 1

Lucia Range – 100% Recycled Polyester (Non metallic dyestuffs)

Turtle YB098	Arecibo YB099	Bermuda YB084	Campeche YB301	Apple YB096
Marianna YB157	Steel YB095	Madura YB156	Bluebell YB097	Mauve YB069
Windjammer YB047	Montserrat YB011	Scuba YB089	Curacao YB005	Sombrero YB046
Ocean YB100	Bluefield YB021	Taboo YB045	Cayman YB024	Costa YB026
Oyster YB107	Adobo YB165	Solano YB088	Reef YB085	Aruba YB093
Tortuga YB168	Belize YB105	Rum YB086	Sandstorm YB302	Lobster YB087
Calypso YB106	Slip YB094	Tequila YB038	Bridgetown YB102	Jamaica YB027
Buru YB170	Blizzard YB108	Diablo YB101	Tobago YB030	Martinique YB004
Paseo YB019	Tarot YB090	Havana YB009		

Flammability

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

Screen Range – 60% Viscose, 40% Wool

Spicy IB140	Claret IB015	Azalea IB132	Strawberry IB079
Marmalade IB142	Penstemon IB137	Dewberry IB138	Tulip IB122
Rose IB046	Pastry IB135	Juniper IB092	Zodiac IB124
Prism IB066	Seafoam IB041	Pearl IB081	Aquamarine IB141
Mermaid IB127	Kingfisher IB146	Wedgewood IB025	Sky IB042
Royal IB007	Corinth IB098	Saraband IB126	Bluenose IB133
Delta IB125	Fjord IB073	Battleship IB074	Viola IB123
Lead IB067	Haze IB119		

Flammability

- BS 476 Class 1

Monarfloor® Absorption Panels

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

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

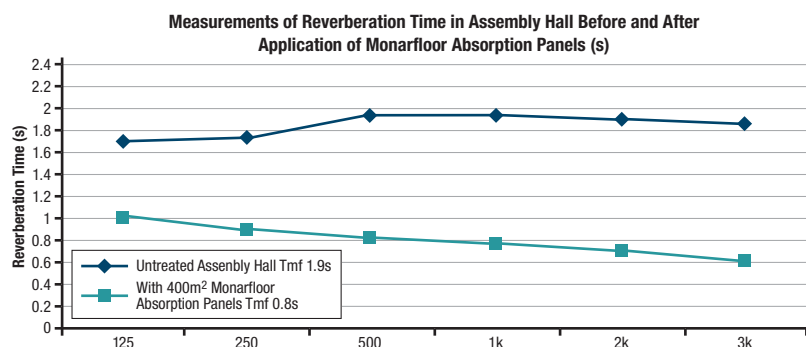
Table 1 – Individual Sound Absorption Values in third octave bands (according to DIN EN ISO 11654).

		Frequency (Hz)								
		100	125	160	200	250	315	400	500	630
40mm	α_p Oct	0.15			0.40			0.75		
50mm	α_p Oct	0.20			0.55			1.00		
		800	1000	1250	1600	2000	2500	3150	4000	5000
40mm	α_p Oct	0.95			1.00			1.00		
50mm	α_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 α_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 our Monarfloor® Adhesives Data Sheet.

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.

NOTE: This information is given in good faith being based on the latest knowledge known to Monarfloor® Acoustic Systems. Whilst every effort has been made to ensure the contents of the publication are current while going to press, customers are advised that products, techniques and Codes of Practice are under constant review and liable to change without notice. Up to date information is available from our Technical Services Department on request.

Responsibility cannot be accepted for the application of products, and no claims can be considered, where the manufacturer's instructions have not been followed. The user should not assume; based on information provided in this sheet, that the product is suitable for any abnormal use.

All products are sold subject to our standard terms and conditions of sale, a copy of which is available on request.

Icopal Limited

Barton Dock Road, Stretford, Manchester M32 0YL
Telephone: 0161 866 6540 Fax: 0161 866 6527
Email: acoustics.uk@icopal.com



For further information call 0161 866 6540
or visit www.monarfloor.co.uk