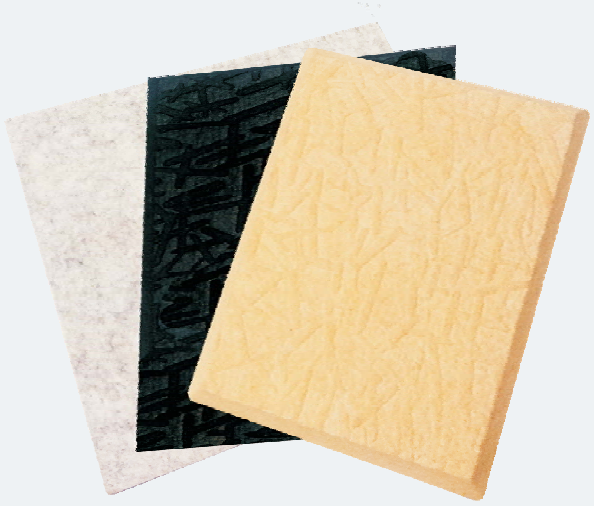
NOISESTOP®
Polyester Fibre Board

Introduction

NOISESTOP Sound Absorptive Polyester Board is made from high density 100% thermally bonded polyester fibre raw material. The air cavity behind the panel trap the air flow to contribute to the sound absorption.Polyester is safety,no harm to human and environmental friendly.It helps create a healthy living space over the tranditional fiberglass.

NOISESTOP Polyester Board offers various colors and pattern. It is generally used as a surface mounted treatment on walls and ceilings.It can be glued directly on surface or install with impaling clips. Typical application includes theatres, hotels, offices, halls and various public places.



Features

NOISESTOP Polyester Fibre has various advantages: high sound absorption, stable and reliable material, low water absorption, good thermal insulation, vermin resistant and easy installation.

Flammability: NOISESTOP Polyester Fibre has been tested in National Fire Equipment Quality Testing Centre, achieving Class B_1 in building material category.

It is odourless and achieves Class E_1 in VOC test; non-irritant; no harmful to human health. It can also be recycled and has less pollution to environment.

Product Specification

Model	Thickness	Density	Size
PF9	9mm	132kg/m^3	1220x2420mm

Acoustic Performance

Testing in accordance with ASTM C423-09a Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.

PF9 Sound Absorption Coefficient

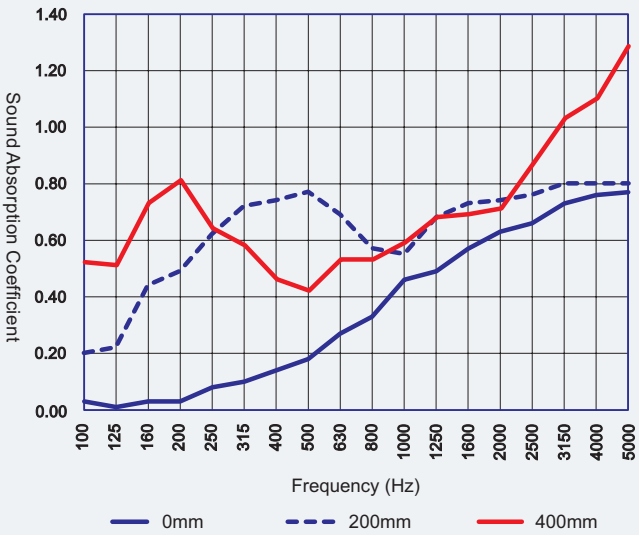
1/3 Octave Band and 1/1 Octave Band Sound Absorption Coefficient										
Cavity / Hz	0mm		100mm		150mm		200mm		400mm	
100	0.03		0.07		0.14		0.20		0.52	
125	0.01	**0.00**	0.13	**0.15**	0.18	**0.20**	0.22	**0.30**	0.51	**0.60**
160	0.03		0.23		0.31		0.44		0.73	
200	0.03		0.26		0.39		0.49		0.81	
250	0.08	**0.10**	0.33	**0.35**	0.50	**0.50**	0.62	**0.60**	0.64	**0.70**
315	0.10		0.48		0.59		0.72		0.58	
400	0.14		0.55		0.66		0.74		0.46	
500	0.18	**0.20**	0.62	**0.62**	0.71	**0.70**	0.77	**0.75**	0.42	**0.45**
630	0.27		0.69		0.73		0.69		0.53	
800	0.33		0.76		0.69		0.57		0.53	
1000	0.46	**0.45**	0.79	**0.75**	0.67	**0.70**	0.55	**0.60**	0.59	**0.60**
1250	0.49		0.72		0.57		0.68		0.68	
1600	0.57		0.61		0.66		0.73		0.69	
2000	0.63	**0.60**	0.63	**0.65**	0.74	**0.70**	0.74	**0.75**	0.71	**0.75**
2500	0.66		0.72		0.72		0.76		0.87	
3150	0.73		0.79		0.78		0.80		1.03	
4000	0.76	**0.75**	0.76	**0.80**	0.74	**0.75**	0.80	**0.80**	1.10	**1.00**
5000	0.77		0.79		0.77		0.80		1.29	
NRC	**0.35**		**0.60**		**0.65**		**0.65**		**0.60**	

Mechanical Properties

Item	Test Standard	Result
Flammability	GB 8624-1997	B_1
VOC	GB 18580-2001	E_1
Moisture Content	Oven-Drying Method	≤0.4%

Sound Absorption Coefficient vs Frequency

PF9 with Air Cavity



NOISESTOP®
Polyester Fibre Board

Acoustic Performance

PF9 with Air Cavity with Infill PF25

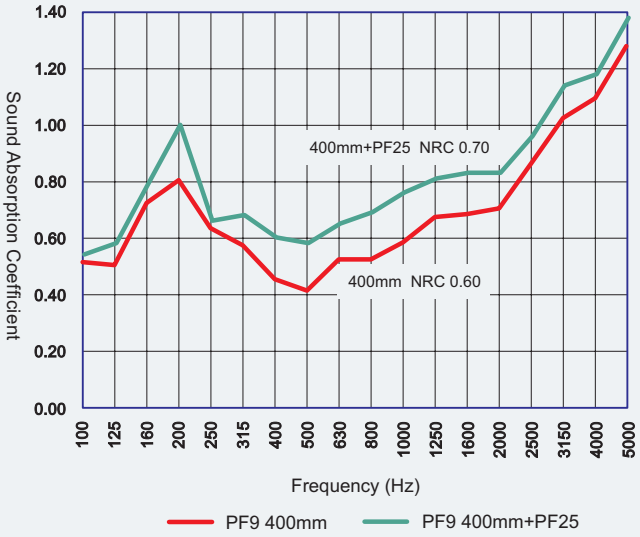
1/3 Octave Band and 1/1 Octave Band Sound Absorption Coefficient								
Cavity / Hz	100mm		150mm		200mm		400mm	
100	0.13		0.19		0.35		0.54	
125	0.23	**0.25**	0.26	**0.30**	0.40	**0.45**	0.58	**0.65**
160	0.37		0.44		0.56		0.79	
200	0.48		0.55		0.79		1.00	
250	0.59	**0.60**	0.72	**0.70**	0.62	**0.70**	0.66	**0.80**
315	0.71		0.80		0.70		0.68	
400	0.76		0.81		0.81		0.60	
500	0.79	**0.80**	0.84	**0.85**	0.78	**0.75**	0.58	**0.60**
630	0.82		0.85		0.73		0.65	
800	0.80		0.79		0.60		0.69	
1000	0.80	**0.80**	0.72	**0.75**	0.67	**0.70**	0.76	**0.75**
1250	0.74		0.70		0.77		0.81	
1600	0.70		0.78		0.78		0.83	
2000	0.78	**0.80**	0.82	**0.85**	0.78	**0.85**	0.83	**0.85**
2500	0.93		0.93		0.93		0.96	
3150	1.07		1.06		1.12		1.14	
4000	1.08	**1.00**	1.07	**1.00**	1.12	**1.00**	1.18	**1.00**
5000	1.34		1.23		1.30		1.38	
NRC	**0.75**		**0.80**		**0.70**		**0.70**	

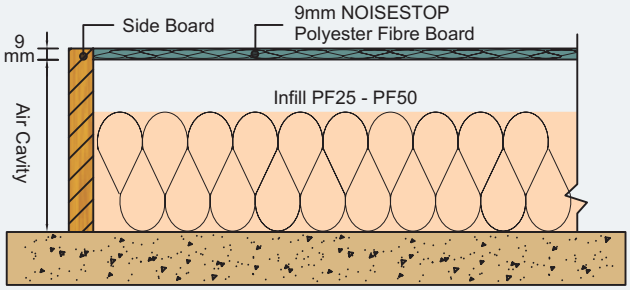
PF9 with Air Cavity with Infill PF50

1/3 Octave Band and 1/1 Octave Band Sound Absorption Coefficient								
Cavity / Hz	100mm		150mm		200mm		400mm	
100	0.26		0.33		0.41		0.64	
125	0.33	**0.40**	0.41	**0.45**	0.52	**0.55**	0.62	**0.70**
160	0.58		0.64		0.71		0.91	
200	0.68		0.71		0.95		1.07	
250	0.80	**0.80**	0.86	**0.85**	0.74	**0.80**	0.72	**0.85**
315	0.86		0.97		0.77		0.69	
400	0.91		1.01		0.85		0.65	
500	0.88	**0.90**	0.92	**0.95**	0.75	**0.80**	0.64	**0.70**
630	0.87		0.86		0.76		0.78	
800	0.79		0.82		0.69		0.76	
1000	0.80	**0.80**	0.77	**0.80**	0.75	**0.75**	0.85	**0.85**
1250	0.79		0.83		0.87		0.91	
1600	0.83		0.90		0.83		0.92	
2000	0.89	**0.90**	0.93	**0.95**	0.84	**0.85**	0.89	**0.95**
2500	1.02		1.00		0.93		1.02	
3150	1.17		1.19		1.03		1.15	
4000	1.18	**1.00**	1.19	**1.00**	1.08	**1.00**	1.18	**1.00**
5000	1.44		1.43		1.23		1.34	
NRC	**0.85**		**0.85**		**0.80**		**0.80**	

Sound Absorption Coefficient vs Frequency

Sound Absorption Improvement with Infill PF25





Test Configuration of PF9

Sound Absorption Improvement with Infill PF50