Technical Information

Noiseflex® Classic MH

That sound absorption in rooms can be very important, is fact among acousticians. Noiseflex® Classic MH are sheet shaped broadband absorbers made of Noiseflex® MH. They can produce an improvement of room acoustics mainly at medium and high frequencies. Noiseflex® MH is a flexible, open-cell foam material made from melamine resin. Its typical feature is the filigree, spatial network structure, which is formed by slim and thus easily ductile fillets. Noiseflex® MH offers a wide spectrum of attractive characteristics, e. g. it is highly sound absorbing and light weight. These acoustic advantages of Noiseflex® MH are behind the many applications of Noiseflex® Classic MH in the field, especially in sound studios, HiFi range, open plan offices, production and multipurpose halls as well as event venues. Noiseflex® Classic MH, if properly applied, is capable of drastically reducing sound level and reverberation time in halls, for instance.

Physical characteristics:

Noiseflex® Classic MH are chemically resistant to many substances. They do not contain halogenated hydrocarbons.

Technical Data:

Absorber	Noiseflex® MH Melamine resin foam	
Fire resistant properties	B1 – flame-retardant	DIN 4102-1
Raw density	5.5 – 10.5 kg / m^3, depending on colour	EN ISO 845
Tensile strength	> 100 kPa	ISO 1798
Elongation at break	> 18 %	ISO 1798
Compressive strength	> 5 kPa	EN ISO 3386 – 1
Thermal conductivity	$\lambda \leq 0.04$ W / (m·K), depending on temperature	DIN EN 12667

Colours:

Noiseflex® Classic MH absorbers are available in the following colours as standard:

white

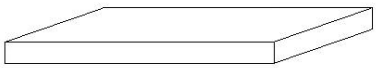
grey

Due to product properties, variations in colour and pore size and structure may occur. Tolerances in width and length of up to 1.5 % are possible.

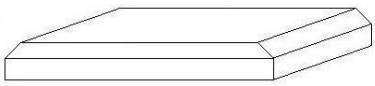
Design and dimensions:

Dimensions
1000 x 500 x 30
1000 x 500 x 50
1000 x 500 x 70
1000 x 500 x 100

Noiseflex® Classic MH white / grey



Noiseflex® Classic Plus MH white / grey



Furthermore, the following types of both variants are available:
Noiseflex® Classic MH and Noiseflex® Classic Plus MH with self adhesive coating
Noiseflex® Panino MH with heavy foils Noiseflex® Vibra heavy (5 and 8 kg / m²) and with self adhesive coating

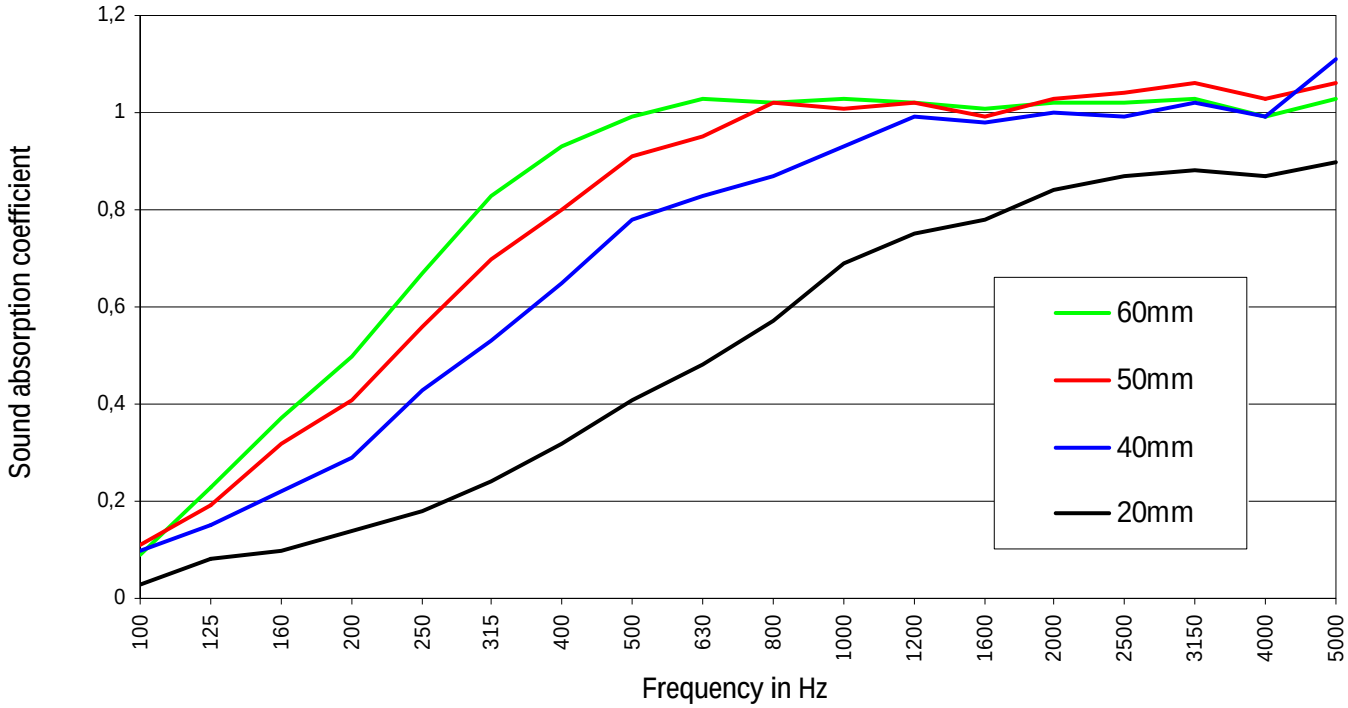
Processing instructions:

The dust arising when processing, e.g. when sawing and milling, it should be drawn off immediately at the cutting site. It is recommended to wear a dust mask during these operations.
The material's moisture content is altered depending on the environmental conditions.
Dimension modifications are associated with this similarly as is the case with wood, concrete or clay brick. This behavior has to be considered when converting. The foam sections packed in the manufacturing state have to be unpacked at least 3 – 5 days prior to converting them and intermediately stored under climatic conditions that match those of the later intended use.
For full surface gluing of Noiseflex® Classic MH onto walls or ceilings we recommend our BOSIG Acoustic Adhesive. Please observe the technical instruction sheet specifications and the processing notes of BOSIG Acoustic Adhesive. Particularly sheets, pyramids or other cuts made of Noiseflex® MH shall be installed with continuous joints. Displacements are to be avoided. Or with a shadow gap of 10 to 20 mm, for achieving an optimal appearance.

Sound absorption of Noiseflex® Classic MH in the reverberation room as per DIN EN ISO 354

Sound absorption according of the thickness								
Frequency [Hz]	20mm		40mm		50mm		60mm	
	Thirds α_s	Octaves α_p	Thirds α_s	Octaves α_p	Thirds α_s	Octaves α_p	Thirds α_s	Octaves α_p
100	0.03		0.10		0.11		0.09	
125	0.08	0.05	0.15	0.15	0.19	0.20	0.23	0.25
160	0.10		0.22		0.32		0.37	
200	0.14		0.29		0.41		0.50	
250	0.18	0.20	0.43	0.40	0.56	0.55	0.67	0.65
315	0.24		0.53		0.70		0.83	
400	0.32		0.65		0.80		0.93	
500	0.41	0.40	0.78	0.75	0.91	0.90	0.99	1.00
630	0.48		0.83		0.95		1.03	
800	0.57		0.87		1.02		1.02	
1000	0.69	0.65	0.93	0.95	1.01	1.00	1.03	1.00
1200	0.75		0.99		1.02		1.02	
1600	0.78		0.98		0.99		1.01	
2000	0.84	0.85	1.00	1.00	1.03	1.00	1.02	1.00
2500	0.87		0.99		1.04		1.02	
3150	0.88		1.02		1.06		1.03	
4000	0.87	0.90	0.99	1.00	1.03	1.00	0.99	1.00
5000	0.90		1.11		1.06		1.03	

Sound absorption of Noiseflex® Classic MH in the reverberation room as per DIN EN ISO 354



Thickness [mm]	Individual value α_w to DIN EN ISO 11654	Noise absorption class to Annex B of DIN EN ISO 11654	Noise reduction coefficient NRC to ASTM C 423
20	0.45 (H)	D	0.55
40	0.70 (M,H)	C	0.80
50	0.85 (H)	B	0.90
60	0.95	A	0.95

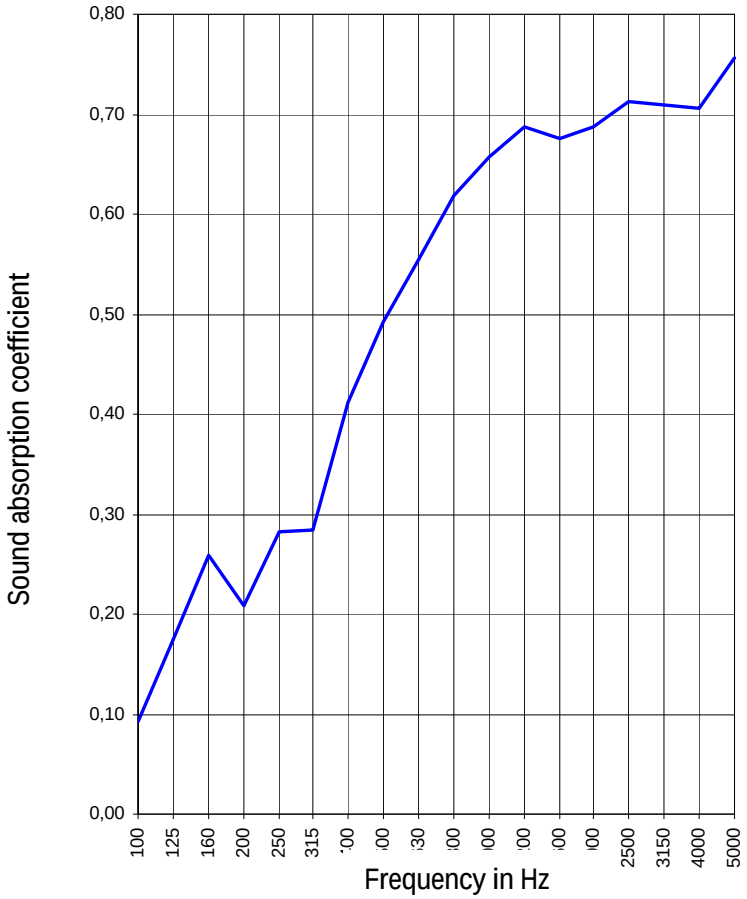
Technical Information

Noiseflex® Classic MH

Sound absorption of Noiseflex® Classic MH as a baffle system in the reverberation room as per DIN EN ISO 354
16 elements 1000 x 500 x 50 mm with border type J, hung horizontally, distance between rows 600mm.

Room volume:	391.6 m³	Test sound:	Broad band noise
Room surface area:	322.2 m²	Receive filter:	Third octave band filter
Date of measurement:	Dec. 13, 2011	Measuring body:	TÜV Rheinland LGA Products GmbH (test report no. 21181673-001)

Sound absorption coefficient α		
Frequency [Hz]	Thirds	Octaves
	α	α
100	0.09	0.18
125	0.18	
160	0.26	
200	0.21	0.26
250	0.28	
315	0.28	
400	0.41	0.49
500	0.49	
630	0.55	
800	0.62	0.65
1000	0.66	
1200	0.69	
1600	0.68	0.69
2000	0.69	
2500	0.71	
3150	0.71	0.72
4000	0.71	
5000	0.76	



Individual value α_w to DIN EN ISO 11654	Noise absorption class to Annex B of DIN EN ISO 11654	Noise reduction coeffizient NRC to ASTM C 423
0.50 (H)	D	0.50

Attention! Important Note:
Above information are based on best present knowledge of current technology, but do not guarantee faultless processing of our products. The information is based on practical results of our tests, but is not binding and does not constitute warranties of characteristics in terms of Federal Supreme Court jurisdiction. Our information does not constitute a legally binding assurance of certain properties or suitability for a specific purpose. Supplementary information by our specialists are merely recommendations, for which no liability is accepted.
Due to the many possible applications of our products, we recommend subjecting the project to a thorough suitability test on original materials before release for further application. Since our information are non-binding we do not warranty their correctness. For this reason we accept no liability for possible improper processing based on information submitted by our employees.
This technical data sheet replaces all previous versions and is valid until a new version is issued, or until Dec. 31, 2018. Please request the latest version after Jan. 01, 2019.

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