Technical Information





Noiseflex® Piano is a closed cell polyethylene foam; the cells open during later processing of the product. This yields a material with very good sound absorbing and also sound damping properties. The material is resistant to water and moisture. Because the Noiseflex® Piano uv product is UV-stable it is suitable for exterior use as well.

Application:

- Absorber panels for direct gluing
- Baffle systems or as ceiling panel
- As filler material for Noiseflex® Picture
- Insert panels in grid ceilings
- Machine noise reduction
- Use in sound acoustic damping walls
- Noise protection in swimming pools. washing bays and shooting ranges

Physical properties:

- High stability and strength, yet very flexible.
- UV-resistant (Noiseflex® Piano uv)
- Very low water absorption, weather resistnt

Standard dimensions:

Length and width 2400 x 1200mm

Thicknesses 50 mm (laminated 2 x 25 mm)

Thickness tolerance $-0/+8 \, \text{mm}$

max. 5 mm deviation Thickness uniformity

Other dimensions and thicknesses available on request.

Technical data:

Material Closed cell polyethylene foam

B1 – flame resistant in acc. with DIN 4102-1 Noiseflex® Piano: Fire behaviour

> B, s1, d0 in acc. with DIN EN 13501-1, material thickness 20 mm B, s2, d0 in acc. with DIN EN 13501-1, material thickness 50 mm

B2 – normal combustibility in accordance with DIN 4102-1

Noiseflex® Piano UV:

0,104 W/m K at 23 °C in acc. with ISO 8301 Thermal conductivity

0.082 W/m·K at - 5 °C in acc. with ISO 8301

Water absorption by diffusion < 4 % by volume in acc. with UNI EN 12088 after 28 days, RH > 95 %

Nominal density Noiseflex® Piano 25 kg/m³ in acc. with ISO 845

Noiseflex® Piano uv in acc. with ISO 845 30 kg/m³

UV stability only for Noiseflex Piano uv given

Colours:

Noiseflex® Piano white (standard)

Noiseflex® Piano anthracite grey (available on request)

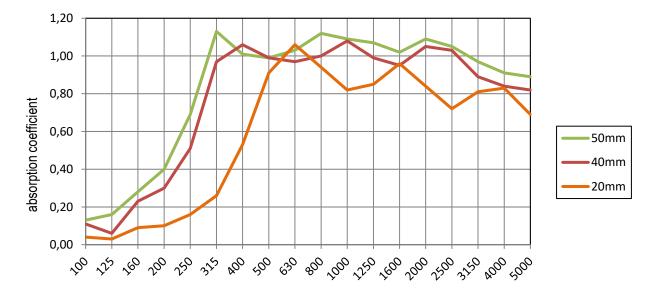
Noiseflex® Piano uv black (available on request)

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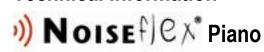
Sound absorption of Noiseflex® Piano in reverberation chamber in acc. with DIN EN ISO 354



Frequency [Hz]

Sound absorption according off he thickness							
F=====================================	50 mm		40 mm		20 mm		
Frequenzy [Hz]	Thirds	Oktaves	Thirds	Oktaves	Thirds	Oktaves	
[2]	α_{s}	α_{p}	$lpha_s$	α_{p}	α_{s}	α_{p}	
100	0.13		0.11		0.04		
125	0.16	0.20	0.06	0.15	0.03	0.05	
160	0.28		0.23		0.09		
200	0.40		0.30		0.10		
250	0.69	0.75	0.51	0.60	0.16	0.15	
315	1.13		0.97		0.26		
400	1.01		1.06		0.53		
500	0.99	1.00	0.99	1.00	0.91	0.85	
630	1.03		0.97		1.06		
800	1.12		1.00		0.94		
1000	1.09	1.00	1.08	1.00	0.82	0.85	
1250	1.07		0.99		0.85		
1600	1.02		0.95		0.96		
2000	1.09	1.00	1.05	1.00	0.84	0.85	
2500	1.05		1.03		0.72		
3150	0.97		0.89		0.81		
4000	0.91	0.90	0.84	0.85	0.83	0.80	
5000	0.89		0.82		0.69		

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	50mm	40mm	20mm
Individual value α _w to DIN EN ISO 11654	1.00	0.90	0.45 (M, H)
Noise absorption class to Annex B of DIN EN ISO 11654	А	Α	D
Noise Reduction Coefficient NRC (ASTM C 423)	0.94	0.90	0.68

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, 2024. Please request the latest version after Jan. 01, 2025.

Dr. Hermann, Anwendungstechnik / Application Technology, Gingen / Fils