Technical Information

Noiseflex® MH Dark EcoBalanced

Product description:
Noiseflex® MH Dark EcoBalanced is an anthracite-grey, open-cell foam manufactured from melamine resin.

Product safety and the environment
Noiseflex® MH EcoBalanced is manufactured without the use of halogenated hydrocarbons. The material is not classified as hazardous to water. Noiseflex® MH EcoBalanced is free from blowing agents on delivery and is not subject to labelling requirements under the Hazardous Substances Ordinance. Waste from Noiseflex® MH EcoBalanced can be recovered through energy recovery or material recycling.

Noiseflex® MH EcoBalanced has a Product Carbon Footprint (PCF)* that is up to 50 per cent lower than that of the standard variants. This is achieved through the consistent application of two control mechanisms:

- Noiseflex® MH EcoBalanced is manufactured in a resource-optimised process using renewable energy.* Fossil raw materials are completely replaced by sustainably certified biomass.*
- Furthermore, the processing of the base materials at BOSIG is powered 100 per cent by electricity from renewable energy sources, comprising a proportion generated by the company's own photovoltaic systems and electricity purchased from renewable energy sources, in order to reduce production-related CO_2 emissions.**

BOSIG has been granted the official Basotect® EcoBalanced label by BASF SE.

Storage:
Prolonged exposure to direct UV radiation must be avoided. Store Noiseflex® MH Dark EcoBalanced components in a dry place. Before application, store the formed parts for at least three days, preferably five days under standard climatic conditions or under the climatic conditions expected in the intended application. The reason behind this is the sorption properties of melamine resin. The dimensions of the parts will change as they absorb or release moisture.

* This information is based on documents and data provided by BASF SE.
** BOSIG Energy Management

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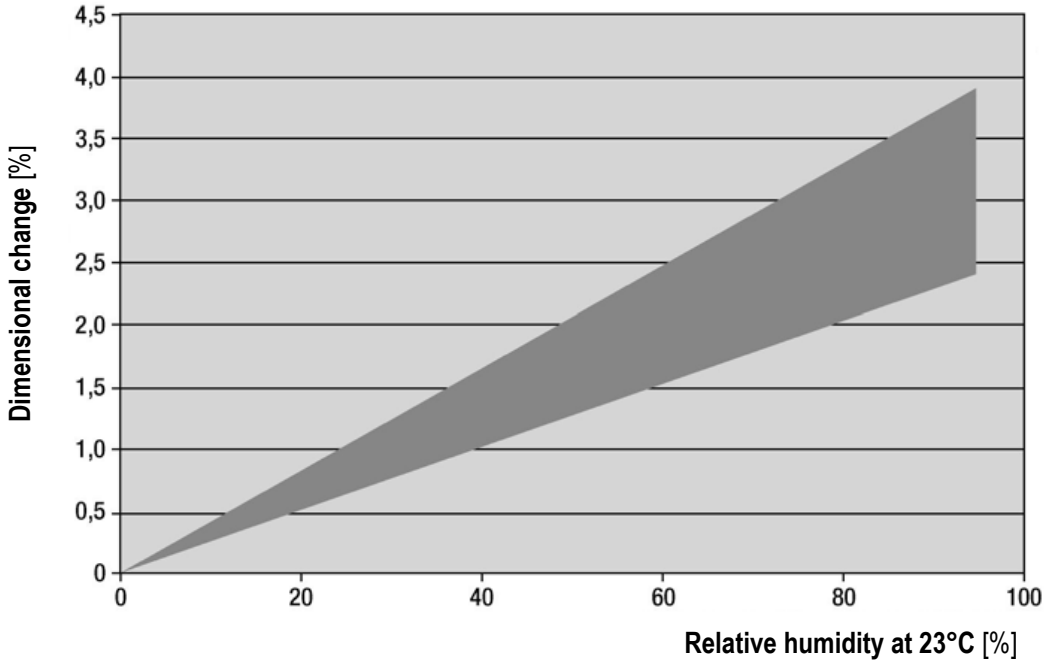

Fig. 1.
Dimensional change of Noiseflex® MH Dark EcoBalanced as a function of room humidity at an ambient temperature of 23 °C.

Physical properties:
The thermoset nature and open-cell structure of the melamine resin foam provide the following properties:

- High sound absorption
- Low thermal conductivity – good thermally insulating properties
- Good fire resistance
- Low weight
- High continuous use temperatures
- No embrittlement at low temperatures

Properties		Values – units	Standards
Specific weight		8.5 ± 1.5 kg/m³	EN ISO 845
Compression stress (average value)		> 5 kPa	EN ISO 3386-1
Tensile strength (average value)		> 100 kPa	EN ISO 1798
Ultimate elongation (average value)		> 18%	EN ISO 1798
Thermal conductivity		λ ≤ 0.04 W/(m·K)	DIN EN 12667
Fire behaviour	Germany	B1	DIN 4102-1
	Europe	B or C*	EN 13501
	USA	V-0	UL 94
		HF-1	

* Test results supporting classification are available; the formal classification procedure is in progress.

Table 1.
Physical properties of Noiseflex® MH Dark EcoBalanced.

The results of acoustic tests in the impedance tube in accordance with DIN EN ISO 10534-2 are shown in Figure 2.
Noiseflex® MH Dark EcoBalanced has a high sound absorption performance in the mid- and high-frequency range.
Improvements to sound absorption at low frequencies may, for instance, be achieved through additional layers of heavy material.

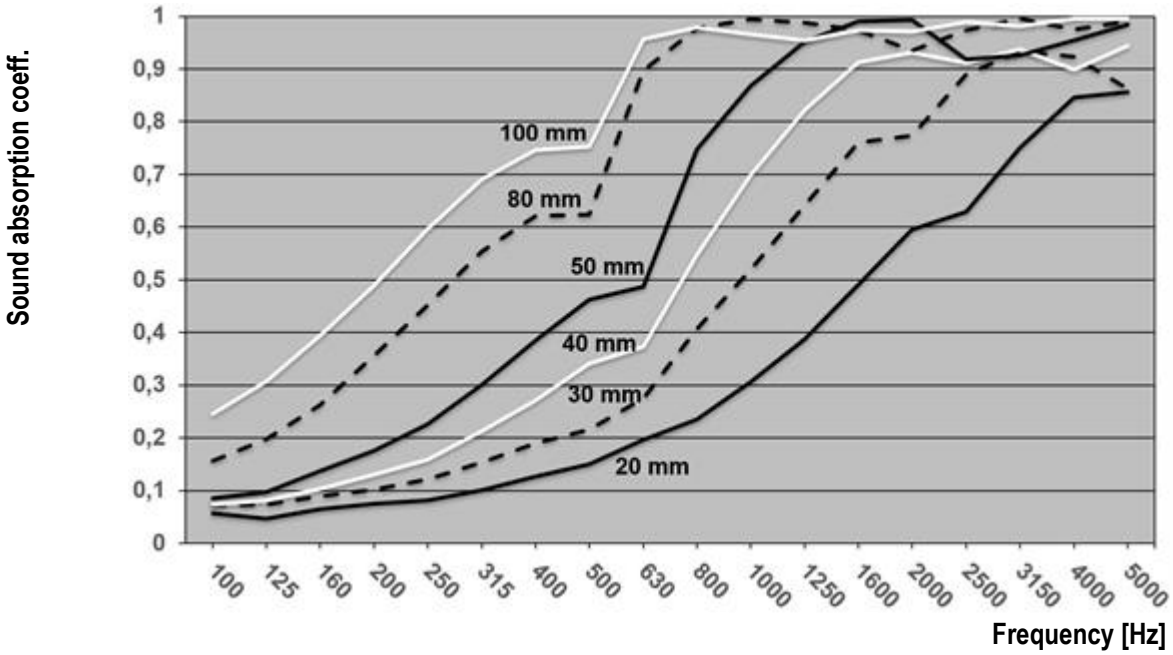

Fig. 2.
Sound absorption coefficient of Noiseflex® MH Dark EcoBalanced as a function of material thickness, measured in accordance with DIN EN ISO 10534-2 using an impedance tube.

Chemical resistance:
According to EN ISO 175, Noiseflex® MH Dark EcoBalanced as a thermoset material is resistant to many substances (Table 2). The compression stress pursuant to ISO 3386-1 (40% compression, 4th load cycle) and the change of the sample geometry were the evaluation criteria. The figures are for a test temperature of 23°C.

Media group	Medium	Evaluation*)
Acids	Acetic acid 100%	+
	Lactic acid 10%	+
	Nitric acid 10%	-
	Hydrochloric acid 10%	-
	Sulphuric acid 10%	-
	Citric acid 10%	+
Other chemicals	Dishwashing detergent 0.1%	+
	Olive oil	+
	Sodium chloride solution 3.6%	+
	Universal cleaner 0.1%	+
	Water	+
Hydrocarbons	Petrol	+
	Diesel	+
	Kerosene	+
Alklalis	Aqueous ammonia 25%	+
	Sodium carbonate 25%	+
	Sodium hydroxide solution 40%	+
Ester	Butyl acetate	+
Ketones	Acetone 100%	+
Alcohols	Ethanol	+
	Methanol	+

*) + resistant
- not resistant

Table 2.
Chemical resistance of Noiseflex® MH Dark EcoBalanced.

Attention! Important Note:
The above information is based on best present knowledge of current technology, but does 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 regarding specific product 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. Any supplementary information provided by our specialists is advisory only, and no liability is accepted for it. 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 is non-binding we do not warrant its accuracy. For this reason we accept no liability for possible improper processing based on information provided by our employees.
This technical data sheet replaces all previous versions and is valid until a new version is issued, or until Dec. 31, 2026. Please request the latest version after Jan. 01, 2027.

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