

Technical Data Sheet

EN

PUREX NG 0407 NF B2 ELITE**Issue date** 28.04.2022**Revision date** 05.09.2022**Product description**

Two-component system for making semi-rigid open-cell polyurethane foam applied by spraying.

It contains no CFC, HCFC and HFC.

It is recommended for thermal and sound insulation making in spraying process using specialist high-pressure devices.

The product obtained can be used as wall, ceiling and floor insulation, and also as loft or garret insulation.

In consideration of its open-cell structure the system has to be used in the way providing the insulation made is not exposed to long-lasting mechanical stresses, moisturizing, steam condensation and weather conditions influence during exploitation.

It is also necessary to provide suitable thermal and anti-ignition barriers assembly (12 mm gypsum boards, for example), that can separate insulation from the building interior; fire-control requirements are then fulfilled.

The product marketed in accordance with Regulation (EU) No 305/2011, with the assessment of the performance made in accordance with the European harmonized standard EN 14315-1:2013

The product has CE marking and Declaration of Performance has been issued for it.

Instytut Techniki Budowlanej has assessed the emissions of volatile organic compounds from the foam to the indoor air. The assessment found that the product meets the requirements of the Regulation of the Minister of Health and Social Welfare on the permissible concentrations and intensities of factors harmful to health, emitted by building materials, devices and equipment in rooms intended for people. These requirements are met for rooms of all categories.

The foam has to be protected with UV radiation resisted layer.

Two components:	Component A	Component B
Component name	PUREX NG 0407 NF B2 ELITE A	PUREX NG B
State of aggregation	liquid	liquid
Colour	milky brown (after mixing)	brown
Viscosity at 25°C [mPas]	1300 ± 200	150 - 250
Density at 25°C [g/cm ³]	1,11 ± 0,02	1,23 ± 0,01

Application method recommended

Before using component A (polyol) of the system must be thoroughly stirred with a mechanical stirrer.

Before using component A (polyol) of the system must be thoroughly stirred (approx. 1 hour stirring for the drum V200) – it is also recommended to recalculate through the hoses of spraying machine. It is recommended to stir the polyol also during spraying. Inadequate quality of foam means it is necessary to interrupt spraying and re-stirring of the contents of drum with the component A.

NOTE: The long-term processing insufficiently mixed polyol component will result in irreversible loss of its properties.

Detailed warnings and recommendations for the system processing are given in the Application Instruction of the system.

The system application should be made using specialist foaming unit provided with spraying head. The unit and parameters (heaters and hoses temperatures, operating pressure) set have to enable of reaction mixture good intermixing and uniform spraying. The sprayed surface should be completely dry and degreased.

For some coated plastic surface must be prepared in order to obtain a good adhesion of the coating.

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The material final properties after [h]	24
Raw materials temperature at the head inlet recommended [°C]	50 - 60
Ambient temperature during application [°C]	5 - 30
The surface coated temperature recommended [°C]	5 - 40

Technological properties*

Component A:B ratio - by weight	100 : 110
Component A:B ratio - by volume	100 : 100
Raw materials temperature [°C]	20
Cream time [s]	4 - 6
Tack-free time [s]	8 - 13
Free rise density [kg/m ³]	7 - 8

Physical and mechanical product properties*

Density of the foam core in the product acc. to EN 1602 [kg/m ³]	7 - 9
Thermal conductivity at 10°C - mean value [W/mK]	0,037
Thermal conductivity at 10°C - declared value [W/mK]	0,038
Maximum application temperature [°C]	100
Short-term water absorption by partial immersion acc. to EN 1609 (foam without skin) [kg/m ²]	≤ 0,26
Coefficient of water vapor diffusion resistance μ acc. to EN 12086	3 - 4
Dimensional stability acc. to EN 1604 (at 80°C, 10% relative humidity) maximum deformation after 48h	≤ 1,5%
Dimensional stability acc. to EN 1604 (at 70°C, 90% relative humidity) maximum deformation after 48h	≤ 3%
Weighted sound absorption coefficient α_w acc. to EN ISO 11654	0,50 (LH)
Sound absorption class acc. to EN ISO 11654	D
Sound absorption rating acc. to VDI 3755/2000	absorptive
Class of reaction to fire acc. to EN 13501-1	E
Class of reaction to fire acc. to DIN 4102	B2

Transport and storage

Store in dry, well ventilated room, in tightly closed containers. Protect against moisture access and direct exposure to sunrays. Store away from heat sources, in the container originally packaged in a vertical position.

The products should be transported in tightly closed containers.

Permissible temperature during transport [°C]	5 - 25
Recommended storage temperature [°C]	15 - 25

Storage life from manufacture date, if stored in recommended conditions and in original containers: **6 months**

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*Notes

Data presented in this information have been obtained during the system foaming in model conditions. The results obtained when foaming in other conditions can be slightly different from published.

The viscosity test was performed according to the internal procedure.

The system application instruction is available if requested. Polychem Systems company offers its assistance at the system implementation and application in client's manufacture.

Every time the user is obliged to check the product and auxiliary agents usefulness for his intentional use.

The user is obligated to have a valid technical data sheet and safety data sheet of the product, which is provided by the manufacturer during the sale and every time on the customer's request.

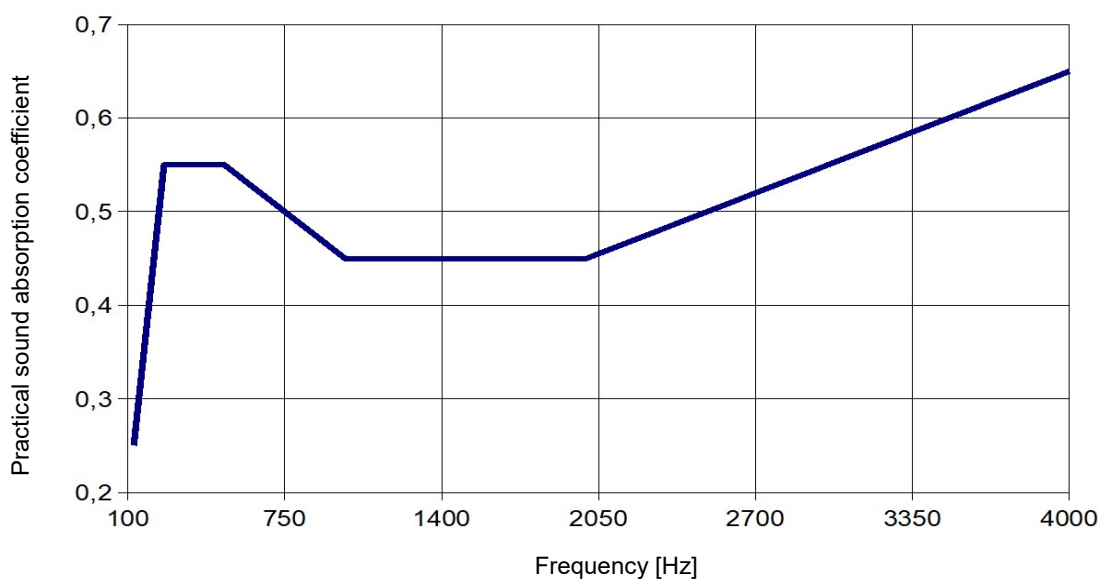
Prior to processing the user must carefully read aforementioned documentation and follow the rules of procedure for product use.

Annex

Sound-absorbing properties acc. to EN ISO 11654

Measurements were made for the foam sprayed in two layers with a total thickness of 18 cm.

Frequency [Hz]	Practical sound absorption coefficient α_p
125	0,25
250	0,55
500	0,55
1000	0,45
2000	0,45
4000	0,65



Weighted sound absorption coefficient $\alpha_w = 0,50$ (LH)

Product class: D

Description acc. to VDI 3755/2000: „absorptive”