

Technical Data Sheet

EN

PUREX NG 0440 NS
Issue date 03.10.2019
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Product description

Two-component rigid polyurethane foam for the production of thermal insulation by spraying on specialized high-pressure equipment.

Especially recommended for thermal insulation and sealing of flat roofs, foundations and floors and ceilings.

It contains a modern blowing agent type HFO with zero ozone depletion potential ODP = 0 and very low global warming potential (GWP).

The product has got Type Acceptance Certificate given by Bureau Veritas.	13792/E0 BV
Certificate No.:	
ITB has issued Report No. 01390/23/Z00NZZP classifying PUREX NG 0440 NS spray polyurethane foam roof as BROOF(t1) according to EN 13501-5:2016-07. The scope of validity of the classification is given in paragraph. 4.3 of the aforementioned report.	
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 + NB-CPR/SG19-17/167r2
The product has CE marking and Declaration of Performance has been issued for it.	

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

Two components:	Component A	Component B
Component name	PUREX NG 0440 NS A	PUREX NG B
State of aggregation	liquid	liquid
Colour	dark green to brown	brown
Viscosity at 25°C [mPas]	700 ± 150	150 - 250
Density at 25°C [g/cm ³]	1,15 ± 0,02	1,23 ± 0,01

Application method recommended

Component A should be thoroughly mixed before use.

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.

Recommended single layer of the foam thickness [mm]	5 - 20
Recommended time between spraying of the following layers [min]	5 - 10
The material final properties after [h]	24
Raw materials temperature at the head inlet recommended [°C]	40 - 45
Ambient temperature during application [°C]	15 - 30
Recommended temperature of the sprayed surface [°C]	15 - 40
Minimum sprayed surface temperature [°C]	5

Technological properties*

Component A:B ratio - by weight	100 : 107
Component A:B ratio - by volume	100 : 100
Raw materials temperature [°C]	20
Cream time [s]	6 - 9
Tack-free time [s]	18 - 25
Free rise density [kg/m ³]	40 - 45

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Physical and mechanical product properties*

Minimum density of the foam core in the product acc. to EN 1602 [kg/m ³]	50
Compression strength at 10% deformation acc. to EN 826 [kPa]	≥ 300
Tensile strength acc. to EN 1607 [kPa]	≥ 400
Initial thermal conductivity at 10°C acc. to EN 12667 [W/mK]	0,0215
Maximum application temperature [°C]	110
Minimum application temperature [°C]	-50
Closed-cell content acc. to EN ISO 4590	≥ 90%
Short-term water absorption by partial immersion acc. to EN 1609 (foam without skin) [kg/m ²]	≤ 0,15
Coefficient of water vapor diffusion resistance μ acc. to EN 12086	55 - 75
Dimensional stability acc. to EN 1604 (at 80°C, 10% relative humidity) maximum deformation after 48h	≤ 3%
Dimensional stability acc. to EN 1604 (at 70°C, 90% relative humidity) maximum deformation after 48h	≤ 5%
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 and direct exposure to sunlights. Store away from heat, in the original container, 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 for component A from manufacture date, if stored in recommended conditions and in original containers: **3 months**

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

*Notes

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

The viscosity test was performed according to the internal procedure.

System application instruction is available if requested. Polychem Systems offers its assistance in the use and application of the system at the customer's premises.

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 at the customer's request.

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

As from 24 August 2023 adequate training is required before industrial or professional use.