

**Technical Information No 9/2017**  
**DP No 03-CPR305-2014**



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**Purios H77**

**GENERAL INFORMATION**

Two component system for producing rigid polyurethane foam. No blowing agent lean the ozone layer containing, confirming with UE regulations (WE) nr 2037/2000.

Product possess sanitary certificate PZH: HK/B/0455/03/2017.

PRODUCT CHARACTERISTIC			
	Component A	Component B	Standard
Viscosity 25°C [mPas]	300 – 700	170 – 230	WL/3/PURINOVA
Density 25°C [g/cm <sup>3</sup> ]	1.1 – 1.2	1.22 – 1.24	WL/8/PURINOVA
Mixing ratio (by volume)	100	100	
FOAMING CHARACTERISTIC			
Start time [s]	2 – 4		
Gelation time [s]	5 – 7		

\*components temperature in foaming test 40 – 50 °C

**APPLICATION**

In the formulation of thermal-insulating polyurethane spraying rigid foam (ceilings, walls).

**Component A** (Purios H77) mixture of polyols with additives.

**Component B** (Purocyn B) polymeric diphenylmethane 4, 4' diisocyanate.

Surface spraying should be clean and dry, with temperatures min. 15°C, the ambient temperature during spraying min. 15°C and humidity max. 60%. The spray layer thickness should be in the range of 10 – 25 mm.

FOAM PROPERTIES		
Thermal conductivity	$\lambda_m - (0.020 - 0.022) \text{ W/mK}$	EN 14315-1:2013 (PN -EN 12667:2002)
Water vapour transmission Water vapour transmission factor,	$\geq 0.01006 \text{ mg/(m}\cdot\text{h}\cdot\text{Pa)}$	EN 14315-1:2013 (PN - EN 12086:2013)
Water vapour resistance factor, $\mu$	$\leq 72.5$	
Water absorption	$\leq 0.10 \text{ kg/m}^2$	EN 14315-1:2013 (PN EN 1609: 2013) metoda B
Density foam in finished product	$34 - 40 \text{ kg/m}^3$	PN - EN 1602 : 1999
Compressive strength at 10 % strain	$\geq 190 \text{ kPa}$	EN 14315-1:2013 (PN EN 826:2013)
Close cells content	min. 90 %	PN -ISO 4590

Classification regarding reaction to fire	E	EN 14315-1:2013 (PN EN 13501 -1+A1:2010, PN EN ISO 11925 -2: 2010)
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**Note:** The process for the preparation of the foam takes place with the release of heat, and therefore it depends on the external conditions, the lower the temperature of the raw materials of the substrate or the environment, the lower is the degree of expansion (foaming). Foam properties becomes full after 48 hours.

#### CONDITIONS OF STORAGE AND TRANSPORT

Optimal storage temperature is 15 - 23 ° C. Raw materials should be stored in dry and closed rooms. Both components must be protected against moisture from the air. Shelf life in original manufacturer's packaging, stored at the recommended conditions is 6 months from the date of manufacture.

According to RID / ADR, both components are not hazardous materials.



Notice: Encompassed dates in this technical information obtained in of the model conditions. During the work in other possible conditions it's possible to obtain differ results from given.

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Annex 1. Performance chart for thermal resistance for the foam according to PN-EN 14315-1, Annex J

Type of facing: none or diffusion open.		
thickness [mm]	Declared aged thermal conductivity $\lambda_D$ [W/mK]	Thermal resistance level $R_D$ [m <sup>2</sup> K/W]
40	0.028	1.45
45	0.028	1.60
50	0.028	1.80
55	0.028	1.95
60	0.028	2.15
65	0.028	2.30
70	0.028	2.50
75	0.028	2.70
80	0.027	3.00
85	0.027	3.15
90	0.027	3.35
95	0.027	3.50
100	0.027	3.70
105	0.027	3.90
110	0.027	4.10
115	0.027	4.25
120	0.026	4.60
125	0.026	4.80

Tab.1 Application with none facing or diffusion open

Type of facing: one diffusion tight and one diffusion open.		
thickness [mm]	Declared aged thermal conductivity $\lambda_D$ [W/mK]	Thermal resistance level $R_D$ [m <sup>2</sup> K/W]
30	0.028	1.10
35	0.028	1.25
40	0.027	1.50
45	0.027	1.65
50	0.027	1.85
55	0.027	2.05
60	0.026	2.30
65	0.026	2.50
70	0.026	2.70
75	0.026	2.90
80	0.026	3.10
85	0.026	3.25
90	0.026	3.45

Tab.2 Application with one diffusion tight facing.