

1. PRODUCT DESCRIPTION

EKOPRODUR G-PUR 35 is a two-component system designed for the production of closed-cell, self-extinguishing, rigid polyurethane foam.

POLY COMPONENT (polyol mixture)	EKOPRODUR G-PUR 35 POLY
ISO COMPONENT (isocyanate)	ISO KOMPONENT B

2. APPLICATION

EKOPRODUR G-PUR 35 is intended for in-situ internal thermal insulation applied by spray method. It can be used for the insulation of walls, ceilings, attics, basements, tanks, pipelines, and other elements with complex or irregular geometry. The EKOPRODUR G-PUR 35 system is used in residential and commercial construction, agriculture, and industry.

3. COMPONENT CHARACTERISTICS

POLY Component – a formulated polyol blend in the form of an oily yellow-green liquid, which may contain a suspension.

ISO Component – a mixture of aromatic polyisocyanates, primarily diphenylmethane diisocyanate. A brown-colored liquid, free from suspensions.

Parameter	POLY	ISO	Unit
Density at 20° C	1,19 ± 0,01	1,22 ± 0,02	g/cm ³
Viscosity at 20° C	1200 ± 300	350 ± 100	mPa·s

4. FOAMING CHARACTERISTICS IN LABORATORY CONDITIONS

Reaction times and apparent core density were measured in laboratory conditions (at 20° C) for manual foaming in a laboratory vessel - stirrer approx. 7000 rpm.

Parameter	Value	Unit
The volume ratio of POLY:ISO components	100 : 100	
Cream time	4 ± 2	s
Gel time	10 ± 3	s
Tack free time	13 ± 4	s
Apparent core density	36 ± 2	kg/m ³

5. RECOMMENDED PROCESSING CONDITIONS

EKOPRODUR G-PUR 35 is a system designed for spraying, which should be processed using specialized foaming units equipped with a spray head. Recommendations are based on experience spraying with a Graco Reactor H-XP3 machine with a FUSION AP gun (mix chamber 5252).

IMPORTANT: Prior to use, both components must be preheated to a temperature of 30–40 °C. In addition, the POLY component must be thoroughly mixed (approximately 1 hour before the start of application and continuously during spraying) using a drum agitator – the recommended agitator is the Graco Twistork. The ISO component does not require mixing.

The volume ratio of POLY:ISO components	100 : 100	
Recommended machine settings		
Parameter	Value	Unit
POLY and ISO heating temperature	54 - 56	°C
Hose heating	54 - 56	°C
Component’s pressure	75 - 85 (1088–1233)	Bar (psi)
Component’s temperature in barrels	30 - 40	°C
Optimal processing conditions		
Ambient temperature	15 – 35	°C
Recommended substrate temperature	15 – 50	°C
Relative ambient humidity	< 70	%
Humidity of the porous substrate	< 15	%
Humidity of non-porous substrate	0	%

Insulated surfaces should be prepared in advance. They cannot contain dust, water, oil, loose fragments and other substances that may reduce the adhesion of the foam.

Before spraying, carefully protect the surfaces of neighboring objects, windows, doors, floors, furniture, etc., to avoid accidental soiling during spraying - remember that the sprayed foam has very good adhesion and can be difficult to remove later from undesirable places. The pressure settings for the POLY Component and the ISO Component should be the same.

To achieve optimal insulation performance, at least two uniform layers of foam should be applied, ensuring that the total thickness is not less than 60 mm. Between the application of successive layers, it is necessary to allow the foam to stabilize (layer temperature below 30 °C). All insulation layers should be completed within a single day.

IMPORTANT: It is recommended that the thickness of each individual layer falls within the range of 30–35 mm.

After the application of the EKOPRODUR G-PUR 35 system, the treated area should be ventilated until any residual odor dissipates. In the absence of adequate natural ventilation, forced air circulation must be provided using dedicated equipment. If the foam is exposed to direct ultraviolet radiation (e.g., sunlight), it must be protected.

Before commencing work with the EKOPRODUR G-PUR 35 system, the Safety Data Sheets (SDS) of both components must be reviewed.

6. PERFORMANCE PROPERTIES

Usable properties of spray foam applied using a specialized machine:

Parameter	Value	Unit	Standard
Apparent core density	≥ 35	kg/m ³	EN 1602
Flammability class:	F	-	EN 13501-1
Thermal conductivity coefficient, $\lambda_{mean, i}$	0,025 – 0,028	W/(m·K)	EN 12667
Thermal conductivity coefficient, $\lambda_{90,90}$	0,029	W/(m·K)	EN 12667
Thermal conductivity coefficient λ_D taking ageing into account	$\lambda_D = 0,033$	W/(m·K)	EN 12667
Compressive stress at 10% relative strain, σ_{10}	≥ 150	kPa	EN 826
Dimensional stability: 70 °C, 90% RH, after 48 hours	DS(70,90)3	-	EN 1604
Dimensional stability: -20 °C, after 48 h	DS(-20,-)3	-	EN 1604
Water vapour diffusion resistance factor, μ	≥ 50	-	EN 12086
Short-term water absorption by partial immersion, W_P	$\leq 0,20$	kg/m ²	EN 1609

Full mechanical properties of the foam are achieved after 48 hours of seasoning.

7. PACKAGING

Metal drums with a capacity of 216 dm³.

8. RECOMMENDED STORAGE CONDITIONS

Both components of the system should be stored in tightly sealed containers, in dry storage areas at a temperature of 10 – 25 °C. They must be protected from moisture and direct sunlight. The shelf life of the POLY component, when kept in the manufacturer's original unopened packaging under the recommended storage conditions, is **2 months**.

9. LEGAL REGULATIONS

- EKOPRODUR G-PUR 35 does not contain ozone-depleting foaming agents, in accordance with European Union regulations on the marketing and use of controlled substances – Regulation (EU) No. 2024/590 of 7 February 2024.
- Polyurethane system EKOPRODUR G-PUR 35 has been placed on the market in accordance with European Union Regulation (EU) No. 305/2011, with the assessment of its performance carried out in accordance with the harmonized European standard EN 14315-1:2013
- The product is CE marked and a Declaration of Performance (DoP) has been issued for it.
- Transport regulations apply in accordance with section 14 of the Product Safety Data Sheet.

10. ADDITIONAL INFORMATION

The data contained in this technical information is based on the results of our laboratory tests and practical experience and does not constitute a guarantee of the properties of the final finished product. The results obtained may differ from those given in the case of using the product in conditions other than those assumed. Therefore, we recommend carrying out your own tests to check the suitability of the product for a given application. The use of the foam and the conditions of its application are not controlled by the manufacturer, the contractor is responsible for their correct selection. The guidelines for the use of the system are contained in the Technical Information (TDS) and Safety Data Sheets (SDS). Failure to comply with the conditions recommended by the manufacturer may adversely affect the foam application process and its parameters.

IMPORTANT: We are happy to provide technical and substantive assistance in the implementation and use of the EKOPRODUR G-PUR 35 polyurethane system. At the same time, when necessary, we help in adjusting and selecting important parameters. In all matters related to the purchase and use of the EKOPRODUR G-PUR 35 polyurethane system, we encourage you to contact your technical and commercial representative directly or by writing to prodex@pcc.eu.