

1. POPIS VÝROBKU

EKOPRODUR S0330 je dvojzložkový polyuretánový systém pre produkciu polotvrdej polyuretánovej peny s uzavretou bunkovou štruktúrou, so samozhášavými vlastnosťami. Vynikajúce tepelnoizolačné vlastnosti výrobku boli dosiahnuté vďaka použitiu HFO - štvrtá generácia napeňovadla pre skupinu hydrofluórolefínov s nízkym vplyvom na globálne otepľovanie $GWP^1 = 1$ a nulovým indikátorom potenciálu poškodzovania ozónovej vrstvy $ODP^2 = 0$.

ZLOŽKA POLY (zmes polyolov)	EKOPRODUR S0330 POLY
ZLOŽKA ISO (izokyanát)	ISO COMPONENT B 2

2. POUŽITIE

EKOPRODUR S0330 je určený na realizáciu vnútornej tepelnej izolácie strešných plášťov, podkrovi, stropov, sendvičových stien s drevenou konštrukciou, murovaných a oceľových konštrukcií; ľahkých rámových konštrukcií budov na bývanie, občiansku vybavenosť, priemyselných budov, hangárov stavaných na mieste.

3. CHARAKTERISTIKA ZLOŽIEK

ZLOŽKA POLY – zmes polyolov pripravená podľa receptúry vo forme olejovitej kvapaliny bez zákalu, svetločervenej až tmavohnedej farby.
ZLOŽKA ISO – zmes aromatických polyizokyanátov, hlavne difenylmetán diizokyanátu. Kvapalina hnedej farby, bez zákalu.

Vlastnosť	POLY	ISO	Jednotka
Hustota pri 20°C	1,18 ± 0,02	1,22 ± 0,02	g/cm ³
Viskozita pri 20°C	350 ± 100	350 ± 100	mPa·s

4. VLASTNOSTI NAPEŇOVANIA V LABORATÓRNYCH PODMIENKACH

Reakčné časy a objemové hmotnosti jadra merané v laboratórnych podmienkach (pri teplote 20°C) pri ručnom napeňovaní v laboratórnej nádobke - miešadlo cca 7000 ot./min.

Vlastnosť	Hodnota	Jednotka
Objemový pomer zložiek POLY:ISO	100 : 100	
Čas štartu	3 ± 1	s
Čas želatinácie	10 ± 3	s
Čas suchej lícovej plochy	13 ± 4	s
Objemová hmotnosť	36 ± 2	kg/m ³

5. ODPORÚČANÉ PODMIENKY PRE SPRACOVANIE

EKOPRODUR S0330 je systém navrhnutý na aplikáciu striekaním a mal by byť spracovávaný pomocou špeciálneho zmiešavacieho zariadenia so striekacou pištoľou. Odporúčania sa založené na použití zmiešavacieho zariadenia GRACO Reactor H-XP3 so striekacou pištoľou PROBLER P2 ELITE (zmiešavacia komora 01).

Objemový pomer zložiek POLY:ISO	100 : 100	
Odporúčané nastavenia zariadenia		
Vlastnosť	Hodnota	Jednotka
Teplota ohrevu POLY a ISO	35 – 45	°C
Teplota ohrevu hadíc	35 – 45	°C
Tlak zložiek	70-100 (1015-1450)	Bar (psi)
Teplota zložiek v sudoch	15 – 30	°C
Teplota ohrevu POLY a ISO	10 – 35	°C
Optimálne podmienky pre spracovanie		
Teplota prostredia	15 – 35	°C
Odporúčaná teplota povrchu	15 – 50	°C
Relatívna vlhkosť prostredia	< 70	%
Vlhkosť porézneho podkladu	< 15	%
Vlhkosť neporézneho podkladu	0	%

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

Before spraying, carefully protect the surfaces of adjacent objects such as windows, doors, floors, furniture, etc., to avoid accidental soiling during spraying – keep in mind that the sprayed foam has very good adhesion and may be difficult to remove later from undesirable places.

Pressure settings for the POLY component and the ISO component should be the same.

In order to obtain the best insulation parameters, at least two uniform layers of foam should be sprayed so that the total thickness is greater than 30 mm. Between spraying successive layers of insulation, wait until the foam stabilizes (layer temperature below 30°C). All layers of insulation should be done in one day.

IMPORTANT: Do not exceed the recommended layer thickness - the maximum thickness of each insulation layer is 35 mm.

After application the EKOPRODUR S0330 system, it is recommended to ventilate the room until the odor disappears. If the ventilation is not adequate, forced air movement should be ensured using dedicated devices. If the foam is exposed to direct UV radiation (e.g., sunlight), it should be protected.

Before starting work with the EKOPRODUR S0330 system, read the Safety Data Sheets of both components.

¹ GWP, Global Warming Potential – potential of creating greenhouse effect - indicator used to quantify the impact of a substance on the greenhouse effect.

² ODP, Ozone Depletion Potential – potential of depleting ozone layer – indicator used to quantify the impact of substance on the ozone layer.

6. PROPERTIES OF SPRAYED FOAM

The measurements were carried out on foam cut from samples made using a special spraying machine.

Parameter	Value	Unit	Standard
Apparent core density	≥ 34	kg/m ³	PN-EN 1602
Flammability class	Class E	-	PN-EN 13501-1
Short-term water absorption by partial immersion, W_p	0,10	kg/m ²	PN-EN ISO 29767
Thermal conductivity $\lambda_{mean, i}$	0,020	W/(m·K)	PN-EN 12667
Thermal conductivity, $\lambda_{90, 90}$	0,021	W/(m·K)	PN-EN 12667
Aging value, λ_b for the thickness:			PN-EN 12667 + NB-CPR/SG19-17/167r2
$d_N < 80\text{mm}$	0,026	W/(m·K)	
$80\text{ mm} \leq d_N < 120\text{ mm}$	0,025	W/(m·K)	
$d_N \geq 120\text{ mm}$	0,024	W/(m·K)	
Compressive stress at 10% relative deformation, σ_{10}	≥ 200	kPa	PN-EN 826
Resistance coefficient of water vapour diffusion, μ	≥ 60	-	PN-EN 12086
Dimensional stability at defined temperature: 70°C, 90% rH, after 48 h	DS(70,90)3	-	PN-EN 1604
Dimensional stability: -20°C, after 48 h	DS(-20,-)3	-	PN-EN 1604
Adhesion of the foam perpendicularly to the surface	≥ 100	kPa	PN-EN 1607
Closed-cell content	≥ 90	%	PN-EN ISO 4590
Emission of volatile organic compounds - French Regulation VOC	Class A+	-	PN-EN 16516

Full mechanical properties of the foam obtained after 48 hours of seasoning.

7. PACKAGING

Metal drums with a capacity of 216 dm³, IBC with a capacity of 1000 dm³.

8. RECOMMENDED STORAGE CONDITIONS

Both components should be stored in tightly closed containers in dry place at a temperature of 10 - 25°C. Protect against moisture and direct sunlight. Shelf life of EKOPRODUR S0330 system stored in original sealed manufacturer's packaging, under recommended conditions, is **3 MONTHS**.

9. REGULATORY AFFAIRS AND CERTIFICATS

- EKOPRODUR S0330 does not contain any foaming agents that deplete the ozone layer. This is in accordance with the provisions of the European Union (EU) Regulation on Ozone Depleting Substances (ODS Regulation) - No. 1005/2009 dated September, 16th 2009
- Polyurethane system EKOPRODUR S0330 has been introduced to the market in accordance with the EU Regulation No. 305/2011, together with an assessment of the performance made in accordance with the European harmonized standard EN 14315-1:2013
- This product has CE marking and Declaration of Performance No. 25DOP-2022-EN
- Product approved by the Polish National Institute of Health
- ADR/RID, IMDG, ICAO/IATA transport regulations do not apply to the transport of this product.

10. ADDITIONAL INFORMATION

Please refer to the data contained in the Safety Data Sheet of both system components.

Data included in this technical information are based on the results of our laboratory tests and practical experience as well. This data does not guarantee the properties of the final product. The results obtained may differ from those listed above especially when the use of the product is under the conditions other than originally intended. Hence, we recommend testing performance of the product for specific application at own degree. Foam application and conditions of use are beyond manufacturer control and contractor is responsible for correct selection. Guidelines for use are included in technical Information sheets (TDS) and safety data sheets (SDS). Failing to meet the recommended conditions can have negative impact on the foam application process and its parameters.

IMPORTANT: We are happy to provide technical and substantive assistance in implementing and applying polyurethane system EKOPRODUR S0330. At the same time when it is necessary and possible, we help in adjusting relevant parameters. In all matters related to the purchase and usage of polyurethane system EKOPRODUR S0330 we encourage you to use a direct contact to our technical and commercial representative or by writing to prodex@pcc.eu.