Ekoprodur® 3050W2

POLYURETHANE SYSTEM

TECHNICAL INFORMATION (TDS)

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1. PRODUCT DESCRIPTION

EKOPRODUR 3050W2 is a two-component polyurethane system for producing closed-cell rigid foam.

COMPONENT POLY (polyol mixture)	EKOPRODUR 3050W2 POLY
COMPONENT ISO (isocyanate)	ISO KOMPONENT B

2. APPLICATION

EKOPRODUR 3050W2 is a polyurethane system used to produce thermal insulation. It is used in the discontinuous production of boilers, water heaters, tanks.

3. COMPONENTS CHARACTERISTIC

COMPONENT POLY – a polyol mixture in the form of an oily liquid without suspensions, with a straw yellow to yellow color.
COMPONENT ISO – a mixture of aromatic polyisocyanates, mainly diphenylmethane diisocyanate. Liquid of brown color, without suspensions.

Parameter	POLY	ISO	Unit
Density at 20°C	1,11 ± 0,02	1,22 ± 0,02	g/cm^3
Viscosity at 20°C	700 ± 300	350 ± 100	mPa·s

4. FOAMING CHARACTERISTICS UNDER LABORATORY CONDITIONS

Reaction times and apparent density of the core were measured in laboratory conditions (at 20°C) with manual foaming in a laboratory vessel – stirrer about 5000 rpm.

Weight ratio of POLY:ISO components	**100 : 150**	
Parameter	**Value**	**Unit**
Cream time	16 ± 5	s
Gel time	80 ± 15	s
Tack free time	145 ± 25	s
Apparent core density	29 ± 2	kg/m^3

5. RECOMMENDED PROCESSING CONDITIONS

EKOPRODUR 3050W2 can be processed with low-pressure and high-pressure foaming machines.

Weight ratio of POLY:ISO components	**100 : 150**	
Parameter	**Value**	**Unit**
Raw material temperature	22 – 26	°C
Ambient temperature	15 - 25	°C
Lining/mold temperature	35 – 45	°C

IMPORTANT: With aluminum or stainless steel cladding, it may be necessary to prepare the substrate mechanically or chemically to increase adhesion.

The foam density in the finished product equals 44-50 kg/m^3. The method of mixing and pouring the system should provide uniform filling of the element with foam. Demolding time depends on the size of the form and the temperature of the form. Full mechanical properties of the foam are obtained after 48 hours of seasoning.

Before starting work with the EKOPRODUR 3050W2 system, please refer to the Safety Data Sheets of both components.

6. FOAM PROPERTIES

The following results were obtained for the finished insulation product prepared from the EKOPRODUR 3050W2 system by pouring into the mold.

Parameter	Value	Unit	Standard
Apparent density of the core	≥ 44	kg/m^3	EN 1602
Fire classification	F	-	EN 13501-1
	B3	-	DIN 4120
Thermal conductivity coefficient $\lambda_{mean,i}$	0,023	W/(m·K)	EN 12667
Closed-cell content	≥ 90	%	EN ISO 4590

Properties after 48 hours of seasoning.

7. PACKAGING

Metal drums with a capacity of 216 dm^3, IBC container with a capacity of 1000 dm^3.

8. RECOMMENDED STORAGE CONDITIONS

Both components of the system 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 the component POLY stored in original sealed manufacturer's packaging, under recommended conditions, is **6 MONTHS.**

9. REGULATORY AFFAIRS AND CERTIFICATS

- EKOPRODUR 3050W2 does not contain foaming agents that deplete the ozone layer, in accordance with European Union regulations on the marketing and use of controlled substances - Regulation (EU) No. 2024/590 of February 7, 2024.
- Transport regulations are applied in accordance with the information contained in section 14 of the product safety data sheet.

10. ADDITIONAL INFORMATION

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 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 date sheets (SDS). Failing to meet the recommended conditions can have negative impact on the foam application process and its parameters.

IMPORTANT: We are glad to provide technical and substantive assistance in the implementation and use of the EKOPRODUR 3050W2 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 polyurethane system EKOPRODUR 3050W2, we encourage you to contact our technical and commercial representative directly or by writing to prodex@pcc.eu