

1. PRODUCT DESCRIPTION

EKOPRODUR FC H004 is a two-component polyurethane system for the production of rigid foam with the self-extinguishing properties.

COMPONENT POLY (polyol mixture)	EKOPRODUR FC H004 POLY
COMPONENT ISO (isocyanate)	ISO KOMPONENT B

2. APPLICATION

EKOPRODUR FC H004 is a polyurethane system used to improve the geotechnical properties of the subsoil: levelling of floors and foundations, ground stabilisation and reinforcement and void filling.

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	1,10 ± 0,02	1,22 ± 0,02	g/cm ³
Viscosity at 20°C	550 ± 150	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.

Parameter	Value	Unit
Weight ratio of POLY:ISO components	100 : 135	
Cream time	8 ± 2	s
Gel time	20 ± 4	s
Tack free time	28 ± 6	s
Apparent core density	57,5 ± 2	kg/m ³

5. RECOMMENDED PROCESSING CONDITIONS

EKOPRODUR FC H004 can be processed with low-pressure and high-pressure foaming machines.

Parameter	Value	Unit
Weight ratio of POLY:ISO components	100 : 135	
Raw material temperature	18 – 22	°C
Ambient temperature	15 – 25	°C
Lining/mold temperature	35 – 45	°C

When an insufficient profile filling or too long stabilization of the profile filling process due to the lower temperature in the production hall appears, the line parameters should be changed as follows:

Parameter	Value	Unit
Weight ratio of POLY:ISO components	100 : 130	
Raw material temperature	22 – 26	°C
Lining temperature	35 – 45	°C

The method of mixing and pouring the system should provide uniform filling of the element with foam. Before starting work with the EKOPRODUR FC H004 system, please refer to the Safety Data Sheets of both components. Full mechanical properties of the foam are obtained after 48 hours of seasoning.

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

6. FOAM PROPERTIES

The following results were obtained for the finished insulation product prepared from the EKOPRODUR FC H004 system.

Parameter	Value	Unit	Standard
Apparent core density	> 60	kg/m ³	EN 1602
Fire classification	F	-	EN 13501-1
	B3	-	
Compressive stress at 10% relative deformation, σ_{10}	>220	kPa	EN 826
Temperature range of the insulation	-30 - +100	°C	-

7. PACKAGING

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

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. LEGAL REGULATIONS

- EKOPRODUR FC H004 does not contain foaming agents that deplete the ozone layer, in accordance with European Union regulations on the trade and use of controlled substances - Regulation (EU) No. 2024/590 of 7 February 2024.
- The product has a hygienic certificate PZH (*Państwowy Zakład Higieny*).
- Transportation regulations 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 data 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 FC H004 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 FC H004, we encourage you to contact our technical and commercial representative directly or by writing to prodex@pcc.eu.