

SECTION 1: PRODUCT DESCRIPTION

EKOPRODUR BY1236 is a two-component system (A+B) designed for the production of closed-cell self-extinguishing rigid polyurethane foam.

COMPONENT A (polyol mixture): EKOPRODUR BY1236

COMPONENT B (isocyanate): EKOPRODUR B

EKOPRODUR BY1236 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.

SECTION 2: APPLICATION

EKOPRODUR BY1236 is used as insulation material on ships, buoyancy chambers on boats and yachts.

It may be processed with low and high pressure foaming machines.

SECTION 3: COMPONENTS CHARACTERISTICS

COMPONENT A

Formulated polyols mixture in the form of oily liquid, dark colour, without suspension.

Density at 20°C $1.11 \pm 0.02 \text{ g/cm}^3$

Viscosity at 20°C $1000 \pm 100 \text{ mPa}\cdot\text{s}$

COMPONENT B

Mixture of aromatic polyisocyanates, especially diphenylmethane diisocyanate. Brown liquid without suspension.

Density at 20°C $1.22 \pm 0.02 \text{ g/cm}^3$

Viscosity at 20°C $350 \pm 100 \text{ mPa}\cdot\text{s}$

SECTION 4: FOAMING CHARACTERISTICS IN LABOLATORY CONDITIONS

Reaction times¹ as well as apparent core density² were measured under the laboratory conditions (at 20°C)

Cream time ¹	15 ± 4 sec.
Gel time ¹	50 ± 10 sec.
Tack Free time ¹	70± 15 sec.
Apparent core density	37 ± 2 kg/m ³

SECTION 5: RECOMMENDED PROCESSING CONDITIONS

The volumetric ratio of components A : B **100 : 100**

The weight ratio of components A : B **100 : 116**

Temperature settings on the machine:

Heating temperature A and B: 18 - 22°C

Ambient temperature: 5 - 30°C

Recommended surface temperature: 30 - 40°C

Insulated surfaces should be prepared before, should not contain dust, water, oil, loose particles and other substances that could reduce the adhesion of the foam.

Foam density in the final product should be not less than 42 kg/m³ (overall foam weight [kg] / mould volume [m³]). Components mixing and pouring into the mould should ensure the uniform fulfilment of the mould – the core density in all points should be no less than 37 kg/m³.

Pressure setting for Component A and the Component B should be the same.

During processing the system please keep in mind all tips and information included in the MSDS sheets for both components.

SECTION 6: PACKAGING

Metal drums with a capacity 200 dm³, IBC with a capacity of 1000 dm³.

¹Reaction times are measured from the beginning of mixing. *Cream time* – until the moment of rising the reaction mixture's volume. *Gel time* – until the moment of drawing out the gelled fibres from the foam. *Tack free time* – until the moment when the surface of the foam is not sticky. (The procedure according to the internal instructions **IJ 11 02**).

²Apparent core density - foam weight divided by the cup's volume (according to EN 1602:2013-07).

SECTION 7: RECOMMENDED STORAGE CONDITIONS

Dry place at 15 - 25°C. Protect from moisture and direct sunlight. Both components should be stored in tightly closed containers. Shelf life in original manufacturer's packaging and stored under normal conditions is **3 MONTHS** from the date of manufacture.

SECTION 8: ADDITIONAL INFORMATION

Data included in this technical information are based on the results from the tests performed in our laboratory as well as on the practical experience. These data do not guarantee the properties of the final product. The results obtained may differ from those listed above especially in the case when the use of the product is under the conditions other than originally intended.

***IMPORTANT:** We are happy to provide technical and substantive assistance in implementing and applying polyurethane system EKOPRODUR BY1236. At the same time when it is necessary and possible we help in adjusting relevant parameters. In all matters related to the purchase and use of polyurethane system EKOPRODUR BY1236 we encourage you to use a direct contact to our technical and commercial representative or by writing to prodex@pcc.eu.*