

1. PRODUCT DESCRIPTION

EKOPROFLEX A15-46 is a two-component polyurethane system designed for the production of high resilience (HR) foams for use in automotive seats. The choice of ISO component affects the properties of the finished foam.

POLY COMPONENT (polyol blend)	EKOPROFLEX A15-46 POLY
ISO COMPONENT (isocyanate)	ISO KOMPONENT FX3222
	ISO KOMPONENT FX24260
	ISO KOMPONENT FX3230

2. APPLICATION

EKOPROFLEX A15-46 is used to produce high resilience (HR) foams for use in automotive seats.

3. COMPONENT CHARACTERISTICS

POLY COMPONENT - A formulated polyol mixture as a white liquid, without suspension.

ISO COMPONENT - mixture of monomeric isomers of diphenylmethane diisocyanate (MDI), polymeric MDI and MDI-based prepolymer. Light to dark brown liquid, without suspension.

Parameter	POLY Measured at 20°C	ISO Measured at 25°C			Unit
		ISO KOMPONENT FX3222	ISO KOMPONENT FX24260	ISO KOMPONENT FX3230	
Density	1,06 ± 0,03	1,21 ± 0,02	1,17 ± 0,02	1,22 ± 0,02	g/cm ³
Viscosity	2500 ± 500	23 ± 13	350 ± 150	30 ± 15	mPa·s

4. FOAMING CHARACTERISTICS UNDER LABORATORY CONDITIONS

Reaction times and apparent density of the core were measured under laboratory conditions (at 20° C) with hand foaming in a laboratory vessel - stirrer approx. 1200 rpm.

Parameter	Value	Unit
POLY:ISO weight ratio (ISO KOMPONENT FX3222)	100 : 42	
POLY:ISO weight ratio (ISO KOMPONENT FX24260)	100 : 54	
POLY:ISO weight ratio (ISO KOMPONENT FX3230)	100 : 54	
Start time	18 ± 5	s
Gel time	80 ± 20	s
Free-rise density		
POLY:ISO KOMPONENT FX3222	40 ± 5	kg/m ³
POLY:ISO KOMPONENT FX24260	50 ± 5	kg/m ³
POLY:ISO KOMPONENT FX3230	40 ± 5	kg/m ³

5. RECOMMENDED PROCESSING CONDITIONS

EKOPROFLEX A15-46 can be processed using low-pressure or high-pressure foaming machines.

POLY:ISO weight ratio (ISO KOMPONENT FX3222)	100 : (40-50)	
POLY:ISO weight ratio (ISO KOMPONENT FX24260)	100 : (50-60)	
POLY:ISO weight ratio (ISO KOMPONENT FX3230)	100 : (50-60)	
Parameter	Value	Unit
Raw material temperature	19 - 25	°C
Ambient temperature	15 - 25	°C
Cladding/mould temperature	45-50	°C
Demoulding time	5-8	min.

Before working with EKOPROFLEX A15-46, read the Safety Data Sheets of both components.

Important: The Ekoproflex A15-46 POLY component must be thoroughly mixed for 15 min before use.

The surface of the mould should be coated with a release agent before use.

The method of mixing and pouring the system should ensure that the moulded part is evenly filled with foam. The demoulding time depends on the size of the moulded part, the mould temperature and the temperature of the POLY and ISO components.

The foam acquires its full mechanical properties after 24 hours of seasoning

6. FOAM PROPERTIES

The following results were obtained for the finished foam product obtained from EKOPROFLEX A15-46 by the cast-in-mould method.

Parameter	Value	Unit	Standard
For ISO KOMPONENT FX3222			
Apparent core density	45 - 65	kg/m ³	EN 1602
Hardness	3-8	kPa	EN ISO 2439
Resilience	55-65	%	EN ISO 8307
Comfort factor	3 - 4	-	EN ISO 2439
Permanent deformation after compression	8 - 13	%	EN ISO 1856/Method A
For ISO KOMPONENT FX24260			
Apparent core density	55 - 75	kg/m ³	EN 1602
Hardness	3-12	kPa	EN ISO 2439
Resilience	55-60	%	EN ISO 8307
Comfort factor	3 - 4	-	EN ISO 2439
Permanent deformation after compression	9 - 11	%	EN ISO 1856/Method A
For ISO KOMPONENT FX3230			
Apparent core density	45 - 65	kg/m ³	EN 1602
Hardness	5 - 12	kPa	EN ISO 2439
Resilience	50-60	%	EN ISO 8307
Comfort factor	2 - 4	-	EN ISO 2439
Permanent deformation after compression	20 - 23	%	EN ISO 1856/Method A

7. PACKAGING

Metal drums of 216 dm³, IBC container of 1000 dm³.

8. RECOMMENDED STORAGE CONDITIONS

Both components of the system should be stored in tightly closed packaging in dry rooms at 15 - 25°C. Protect from moisture and direct sunlight. Shelf life of EKOPROFLEX A15-46 system in original, closed producer's packaging, stored in recommended conditions is **6 MONTHS**. After using part of the contents from the container, the remaining contents should be tightly closed and used quickly.

9. REGULATIONS

- EKOPROFLEX A15-46 does not contain ozone-depleting foaming agents in accordance with the European Union regulations on the marketing and use of controlled substances - Regulation (EU) No 2024/590 of 7 February 2024.
- Transport regulations apply in accordance with section 14 of the Safety Data Sheet.

10. ADDITIONAL INFORMATION

The data contained in this technical information are based on the results of our laboratory tests and practical experience and do not constitute a guarantee of the properties of the final finished product. The results obtained may differ from those given when the product is used under conditions other than those assumed. Therefore, we recommend that you conduct your own tests to verify 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 responsibility for their correct selection rests with the contractor. Guidelines for use of the system are contained in this document and in the Safety Data Sheets (SDS) of the individual components. Failure to comply with the conditions recommended by the manufacturer may adversely affect the processing of the system and the parameters of the finished product.

IMPORTANT: We are happy to provide technical and content-related assistance for the implementation and use of EKOPROFLEX A15-46 polyurethane system. At the same time, if necessary, we will assist you with in adjusting and selecting the relevant parameters. For all matters related to the purchase and use of EKOPROFLEX A15-46 polyurethane system, we encourage you to contact your technical and sales representative directly or write to prodex@pcc.eu.