

POL 540

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Description:

POL 540 is designed for the production of rigid polyurethane foam for thermal insulation of freezers and refrigerators. The formulated polyol is formulated to be used in combination with C-pentane as physical blowing agent.

This Polyol is a mixture of polyether polyols, glycols, activators (contains amine), stabilizer and does not contain any physical blowing agent.

The product is based on Diphenyle Methane Diisocyanate and can be used with all available brands of MDI possessing the below mentioned properties.

POL 540

Specification and typical properties	Appearance	Light yellow/red liquid
	Viscosity at 25 ° C	approx. 6000±500 mPa.s
	Density at 25 ° C	approx. 1.1 gr./cm ³

MDI

Specification and typical properties	Appearance	Dark brown liquid
	Viscosity at 25 ° C	approx. 160-240 mPa.s
	Density at 20 ° C	approx. 1.23 gr./cm ³
	NCO content	30.5 -32.5 % by wt.
	Acidity max.	200 ppm HCl

Processing Conditions and performance¹ (LAB TEST)

Product	Parts by weight	Cream time (sec.)	Gel time (sec.)	Free rise density kg/m ³
POL 540	100	8 – 12	65 – 75	23 - 25
C-pentane	13-16			
MDI	137-142			

¹Reaction characteristics at 24±1°C component temperature. Actual values vary depending on processing conditions.

Laboratory conditions:

Ambient temperature:	23-25 °C
Elevation:	1000 meters above sea level
Mixer speed:	5000 rpm
Mixing time:	5 – 7 s
Iso/Polyol temperature	24±1 ° C.
Mould temperature	40 - 45 ° C

Typical Foam Properties

Item	Units	Result
Density (Core)	Kg/m ³	32-36
Overall Density	Kg/m ³	38-44
Compressive Strenght (↓ to rise direction)	N/mm ²	156
Dimensional Stability (48 hrs) @ -30° @ +70° & 97% RH	%	<0.1 <1.56
Thermal Conductivity (EN12667)	KW/mK	21.3 *
Close cell content	%	>90

* Quoted λ value does not represent inital state of the foam and shows a higer value.

Shelf life Shelf life is guaranteed for 6 months.

Safety Information

Avoid direct skin contact as it may cause irritation/ blistering. If spilled over eyes should be rinsed with eyewash solution and cold water. If ingested, mouth should be washed with water and should not induce vomiting.

Preparation Before using, this polyol has to be mixed very well.

Packing POL 540 will be delivered in 220 kg net drums or 1100 kg net IBC.

This product is very sensible to moisture and drums have to be closed very well.
The recommended storage temperature is between +15° and +25° C.
Polyol should not be stored below 15 ° C and Isocyanate not below 15 ° C.
The storage life is guaranteed for 6 months.

