



Hyperlast

PRODUCT INFORMATION

TECHNICAL DATASHEET

12/6/2016

Introduction

HYPERLAST™ FJ 540E is a polyether based polyol blend which reacts with HYPERLAST LE 5013 Isocyanate to produce a tough elastomer with good high temperature stability. The product is designed for use in applications requiring an elastomer with stability at service temperatures of up to 125°C. The material is suitable for operating temperatures up to 125°C (dry) and for water depths to 3000 metres.

HYPERLAST FJ 540E

Component Properties

Polyol Component

Product Reference	HYPERLAST FJ 540E Polyol
Appearance	Yellow Liquid at 25 °C
Viscosity	1500 – 2500 cP at 25 °C
Specific Gravity	1.05 at 25 °C (Nominal Value)

Isocyanate Component

Product Reference	HYPERLAST LE 5013 Isocyanate
Appearance	Amber Liquid at 25 °C
Viscosity	100 – 200 cP at 25 °C
Specific Gravity	1.21 at 25 °C (Nominal Value)

Mixed System

Mixing Ratio	1.33 : 1 by weight (Polyol : Isocyanate)
Gel Time	5' 0" – 8' 0" (100 g at 25 °C)

Cured System – Typical Properties

Property	Test Method	Value	Unit
Shore Hardness	ISO 868	50 - 55	°D
Tensile Strength	ISO 37	15	MPa
Elongation at Break	ISO 37	100	%
Density	ISO 2781	1170	kg/m ³
Thermal Conductivity	ASTM C518	0.195	W/m ² K

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Processing Details

The following information is given as a guide to processing this product. It is recommended that optimum conditions for a specific application are determined experimentally. Dow Hyperlast Technical Service Department can offer more detailed advice.

Recommended Processing Temperatures

Polyol Component	20 – 30 °C
Isocyanate Component	20 – 30 °C
Mould Temperature	60 – 80 °C
Typical Demould Time	10 – 15 minutes

Recommended Cure Cycle

Cures at ambient temperature.

Storage and Handling

Polyol Component	Store in tightly sealed containers at a temperature of 0 - 30 °C. Raise to the processing temperature and mix well before use. Avoid contact with moisture. Storage at low temperatures may result in freezing of the polyol component; should this occur it should be melted out by raising to the processing temperature and mixed thoroughly before use.	12 months
Isocyanate Component	Store in tightly sealed containers at a temperature of 25 - 35°C. Avoid contact with moisture. Storage below the recommended minimum temperature may result in freezing of the Isocyanate. If the Isocyanate does not fully melt out when raised to the processing temperature it may be necessary to re-melt at a temperature of 60 - 70 °C following the procedures laid down in the information sheet 'ISOCYANATES - HAZARDS AND SAFE HANDLING PROCEDURES'.	12 months

More detailed information on the storage and handling of polyurethane components can be obtained by contacting Dow Hyperlast Technical Service Department.

Packaging

Polyol Component	25 kg, 200 kg,
Isocyanate Component	25 kg, 225 kg, 1100 kg

Safety Considerations

Safety Data Sheets (SDS) are available from The Dow Chemical Company. SDS are provided to help customers satisfy their own handling, safety and disposal needs, and those that may be required by locally applicable health and safety regulations. SDS sheets are updated regularly. Therefore, please request and review the most current SDS before handling or using any product. Copies of the SDS are available on request through your nearest Dow Sales office.

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Customer Notice

Dow encourages its customers to review their applications of Dow products from the standpoint of human health and environmental quality. To help ensure that Dow products are not used in ways for which they were not intended or tested, Dow personnel are willing to assist in dealing with ecological and products safety consideration. Your Dow representative can arrange the proper contacts.

Contact Information:

For more information
contact:
www.dowflowassurance.com

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