



## Product Information

# HYPERLAST™ FJ760E

Polyurethane Elastomer

## Introduction

HYPERLAST™ FJ760E is a polyether-based compound that reacts with HYPERLAST™ LP/LE 5013 Isocyanate to produce a tough polyurethane elastomer with good high-temperature and hydrolysis resistance. The material is suitable for operating temperatures up to 115°C (dry) and for water depths to 3,000 meters.

## Component Properties

### Polyol Component

Product Reference	HYPERLAST™ FJ760E
Appearance	Black Liquid at 25°C
Viscosity	1000 – 2000 cPs at 25°C
Specific Gravity	1.01 – 1.05 at 25°C

### Isocyanate Component

Product Reference	HYPERLAST™ LP/LE 5013
Appearance	Amber Liquid at 25°C
Viscosity	100 – 180 cPs at 25°C
Specific Gravity	1.21 – 1.23 at 25°C

### Mixed System

Mixing Ratio	2:1 by weight (Polyol:Isocyanate)
Gel Time	2' 30" – 3' 30" (100 grams, hand mixed, at 25°C)

## Cured System – Typical Properties

Property	Test Method	Value	Unit
Hardness	ASTM D2240	86 – 94	Shore A
Tensile Strength	ASTM D412	≥ 10	MPa
Elongation at Break	ASTM D412	≥ 100	%
Nicked Crescent Tear	ASTM D624	≥ 30	N/mm
Density	ASTM D792	1,050 – 1,165	kg/m <sup>3</sup>
Taber Abrasion (H-22)	ASTM D4060	≤ 250	mg loss
Thermal Conductivity	ASTM C518	0.195	W/m-K

## Processing Details

The following information is provided as a guide for processing this product. It is recommended that optimal conditions be determined experimentally. The Dow Technical Service Department can provide more detailed advice.

### Recommended Processing Temperatures (°C)

Polyol Component	20 – 30
Isocyanate Component	20 – 30
Mold Temperature	70 – 80

### Recommended Cure Cycle

HYPERLAST™ FJ760E cures at ambient temperature. Cycle times of 5-10 minutes are readily achievable as a result of bulk effects and the use of elevated component temperatures.



## Product Information

### **Storage and Handling**

#### **Polyol Component**

Store in tightly sealed containers at a temperature range of 0°C – 30°C. Raise to the processing temperature and mix well before use. Avoid contact with moisture.

Shelf Life – 12 months. Storage at low temperature may result in freezing of the polyol component. If this occurs, it should be melted out by raising to the processing temperature and mixing thoroughly before use.

#### **Isocyanate Component**

Store in tightly sealed containers at a temperature range of 15°C – 40°C. Avoid contact with moisture.

Shelf Life – 6 months. Storage below the recommended minimum temperature may result in freezing of the isocyanate. If the isocyanate does not melt fully when raised to the processing temperature, it may be necessary to remelt at a temperature range of 60°C – 70°C following the procedures in the Dow Information Sheet “ISOCYANATES – HAZARDS AND SAFE HANDLING PROCEDURES.”

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

### **Product Stewardship**

When considering the use of any Dow products in a particular application, you should review the latest Material Safety Data Sheets from Dow and ensure that they are intended for safe use. For Material Safety Data Sheets and other product safety information, contact Dow. Before handling any other products mentioned in the text, you should obtain available product safety information and take necessary steps to ensure safety of use.

No chemical should be used as or in a food, drug, medical device or cosmetic, or in a product or process in which it may contact a food, drug, medical device or cosmetic until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user's responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

Dow requests that the customer read, understand and comply with the information contained in this publication and the current Material Safety Data Sheet(s). The customer should furnish the information in this publication to its employees, contractors and customers or any other users of the product(s), and request that they do the same.

### **Packaging**

HYPERLAST™ FJ760E is available in 200 kg.

HYPERLAST™ LP/LE 5013 Isocyanate is available in 227 and 250 kg.



## Product Information

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Note: This guide is designed as a general product overview. Please contact your local Dow representative for up-to-date, detailed technical information including registrations and use limitations and to discuss individual applications or requirements.

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