



Formulated Systems

PRODUCT INFORMATION

PROVISIONAL TECHNICAL DATASHEET

5/28/2012

Introduction

HYPERLAST™ C201/35 when processed produces a 35 Shore A elastomer capable of offering good hydrolysis resistance, mechanical properties and fast demoulding. The system is easy to process either by hand mixing or machine dispensing techniques.

The HYPERLAST 201 series consists of a range of unpigmented polyol curatives that react with a common isocyanate to produce elastomers from 35 to 95 Shore A.

HYPERLAST 201/35

Component Properties

Polyol Component

Product Reference	HYPERLAST™ C201/35 Polyol
Appearance	Colorless Liquid at 25°C
Viscosity	1000 - 2000 cP at 25°C
Specific Gravity	1.02 - 1.06 at 25 °C

Isocyanate Component

Product Reference	HYPERLAST™ LE 5046 Isocyanate
Appearance	Amber Liquid at 25°C
Viscosity	100 - 200 mPa.s at 25°C
Specific Gravity	1.21 - 1.23 at 25°C

Mixed System

Mixing Ratio	4.8 :1 by weight (Polyol : Isocyanate)
Gel Time	7' 0" - 10' 0" (100 g at 25°C)

Cured System – Typical Properties

Property	Test Method	Value	Unit
Shore Hardness	BS EN ISO 868	35	°A
Tensile Strength	BS 903 Pt A2	6	MPa
100% Modulus	BS 903 Pt A2	0.4	MPa
Elongation at Break	BS 903 Pt A2	1000	%
Nicked Crescent Tear Strength	ASTM D624	15	N/mm
DIN Abrasion	DIN 53516	>400	mm³ loss
Taber Abrasion (H22)	BS 903 Pt A9 Meth D	>600	mg loss
Cold Flex Temperature	BS 2782 Meth 150B	-75	°C

Processing Details

Please Note: It is essential that the polyol component is thoroughly rolled / mixed before use.

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. Our Technical Service Department can offer more detailed advice.

Recommended Processing Temperatures

Polyol Component	20 - 30°C
Isocyanate Component	20 - 30°C
Mould Temperature	80 - 90°C
Typical Demould Time	15 - 25 minutes

Recommended Cure Cycle

HYPERLAST™ 201 elastomer will cure at ambient temperature, however a post cure of approximately 1 hour at 80°C will ensure that optimum properties are achieved. This is particularly important when thin sections (<5 mm) are cast.

Additional Processing Details

HYPERLAST™ 201 systems can be produced by machine or hand mixing techniques. When hand mixing the mixed components should be vacuum degassed before casting for best results.

Storage and Handling

		Shelf life
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 'Safe Handling – Pure, Modified and Polymeric MDS' Form No. 109-01224X-1009P&M.	6 months

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

Packaging

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

Product Stewardship	The Dow Chemical Company and its subsidiaries ("Dow") has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our Product Stewardship program rests with each and every individual involved with Dow products— from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.
---------------------	---

Customer Notice	Dow strongly encourages its customers to review both their manufacturing processes and 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 available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.
-----------------	--

Contact information:
For more information about this product
please call The Dow Chemical Company.

North America: 1-800-441-4369
Latin America: (+55) 11-5188-9000
Europe: (+31) 11-567-2626
Asia/Pacific: (+60) 3-7965-5392
<http://www.dowhyperlast.com>

NOTICE: No freedom from infringement of any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where Dow is represented. The claims made may not have been approved for use in all countries. Dow assumes no obligation or liability for the information in this document. References to "Dow" or the "Company" mean the Dow legal entity selling the products to Customer unless otherwise expressly noted. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED

