



Desmodur[®] MS-242 + Baytec[®] XL B

85 Shore A

| NATURE OF COMPONENTS | | |
|----------------------|---|-------------------------|
| Prepolymer nature | Nature of chain extender and other components | |
| MDI- Ester | Polyadipate | Ester polyol |
| | Baytec XL B, Baytec XL HQEE | Hydroxy chain extenders |

| CHARACTERISTICS OF COMPONENTS | | | | |
|--|------|-----------------|-------------|----------------|
| | Unit | Desmodur MS-242 | Baytec XL B | Baytec XL HQEE |
| % NCO or Equivalent Weight | % | 6.45-6.74 | 45 EW | 99 EW |
| Physical appearance at 25°C | - | Solid | Liquid | Solid |
| Processing temperature | °C | 80 | 60 | 110 |
| Viscosity at processing temperature | cps | 1460 | 8.0 | N/A |
| Specific gravity at processing temperature | - | 1.18 | N/A | N/A |

| CHARACTERISTICS | |
|---|--|
| Properties | |
| <ul style="list-style-type: none"> - Excellent wear and tear resistance - Superior tensile strength & elongation - Good solvent resistance - Low compression set | |
| Comments | |
| <ul style="list-style-type: none"> - Suitable for forklift tires, sheet goods, wheels, & rollers - Suitable for sprocket wheels & die-cut pads - Ideal for gaskets & seals - Excellent general purpose elastomer - Improved temperature resistance with HQEE | |

| TYPICAL ELASTOMER PROPERTIES (DATA GIVEN AS AN INDICATION) | | | | | |
|--|---------|---------|-----------------|--|----------------|
| Prepolymer | ASTM | Shore | Desmodur MS-242 | | |
| | | | Baytec XL B | | Baytec XL HQEE |
| Chain extender | D 2240 | | 85A | | 94A/44D |
| Hardness | D 4060 | mg loss | 30 | | 32 |
| Taber Abrasion (H-18 Wheel, 1000g load, 1000 cycles) | D 4060 | mg loss | 30 | | 32 |
| Bayshore Resilience | D2632 | % | 32 | | 37 |
| Tensile Strength | D 412 | psi | 7150 | | 5950 |
| Tensile Stress | D 412 | | | | |
| 100% Elongation | | psi | 830 | | 1420 |
| 200% Elongation | | psi | 1215 | | 1770 |
| 300% Elongation | | psi | 1750 | | 2500 |
| Ultimate Elongation | D 412 | % | 575 | | 575 |
| Tear Strength: Die C | D 624 | pli | 525 | | 750 |
| Split Tear | D 1938 | pli | 300 | | 400 |
| Compression Set (22 hrs at 70°C) | D 395-B | % | 24 | | 26 |
| Compression Deflection: | D 575 | | | | |
| 50% | | psi | 2100 | | 3140 |

Health and Safety Information: Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling this material. Before working with this product, you must read and become familiar with the available information on its hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets and product labels. Consult Covestro LLC for more information.

Covestro LLC – 3100 McClaren Woods Drive – Coraopolis PA 15108 - Tel. 724-213-6080 - Fax 724-695-2121- E-mail : info.elastomers@covestro.com - www.elastomers.covestro.com

Covestro LLC is certified ISO 9001 : 2008

Baytec[®] and Desmodur[®] are registered trademarks of Covestro AG.



Desmodur® MS-242 + Baytec® XL B

85 Shore A

| STORAGE AND USE PRECAUTIONS | | | | |
|---|---------|-----------------|------------------------|------------------------|
| | Unit | Desmodur MS-242 | Baytec XL B | Baytec XL HQEE |
| Optimal storage temperature of the drums | °C | <35 | 25 | 25 |
| Storage time (sealed drum) | Month | 6 | See manufacturer specs | See manufacturer specs |
| PREPARATION BEFORE PROCESSING | | | | |
| Preheating time / preheating temperature | hr / °C | 24/80 | 1-2 / 60 | 110°C until molten |
| Homogenization before processing required | - | no | no | no |
| Degassing required | - | yes | yes | no |

| PROCESSING | | | | |
|--|---------|-----------------|-----------------|--|
| Prepolymer | | Desmodur MS-242 | | |
| Chain extender | | Baytec XL BDO | Baytec XL HQEE | |
| Hardness | Shore | 85A | 94A/44D | |
| Desmodur MS-242 processing temperature | °C | 85 | 100 - 110 | |
| Baytec XL B processing temperature | °C | 65 | - | |
| Baytec XL HQEE processing temperature | °C | - | 110 – 120 | |
| NCO/OH Ratio | | 1.05 | 1.1 | |
| Stoichiometry, % Theory | | 95 | 90 | |
| Parts by weight of Desmodur MS-242 prepolymer | | 100 | 100 | |
| Parts by weight of Baytec XL B | | 6.73** | - | |
| Parts by weight of Baytec XL HQEE | | - | 14.13** | |
| Dabco33LV catalyst at 0.5 % by weight of 1,4-BDO | g | 0.034 | Optional | |
| Air release agent (by total weight of prepolymer & extender) | % | 0.05 (Optional) | 0.05 (Optional) | |
| MOLDING AND CURING | | | | |
| Mold Temperature | °C | 110 | 110 | |
| Pot life (400g mixture) * | min | 3 – 7 | 3 – 6 | |
| Demolding time | min | 45 – 90 | 60 - 90 | |
| Post-curing | hr / °C | 16 / 110 | | |

* Possibility to shorten or lengthen the pot life by increasing or decreasing the chosen catalyst quantity. A 7-day aging at 25°C and 50% relative humidity is required to obtain the optimal properties of the elastomer. ** Extender weights calculated for midpoint of NCO specification. Actual %NCO values may vary and require recalculation of extender weight.

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.