# DESMODUR® TD6400 + BAYTEC® XL TMP + PLASTICIZER V10 (Catalyst SD6-40)

20 to 58 Shore A

## NATURE OF COMPONENTS

| Prepolymer nature | Nature of chain extender and other components | |
|---|---|---|
| TDI - Ester | BAYTEC® XL TMP | Alcohol chain extender |
| | PLASTICIZER V10 | Plasticizer |

## CHARACTERISTICS OF COMPONENTS

| | Unit | DESMODUR® TD6400 | BAYTEC® XL TMP | PLASTICIZER V10 |
|---|---|---|---|---|
| % NCO | % | 4.25 (± 0.2) | - | |
| Physical appearance at room temperature | - | solid | solid | liquid |
| Processing temperature | °C | 80 | 90 | 80 |
| Viscosity at processing temperature | cps | 2000 | 75 | 15 |
| Specific gravity at processing temperature | - | 1.19 | 1.05 | 0.98 |

## ELASTOMER TYPICAL PROPERTIES (DATA GIVEN AS AN INDICATION)

| Prepolymer | | | DESMODUR® TD6400 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Chain extender | | | BAYTEC® XL TMP + PLASTICIZER V10 (Catalyst SD6-40) | | | | | | |
| **Hardness at 23°C** | **ISO 48-4** | **Shore** | **20A** | **35 A** | **40 A** | **45 A** | **50 A** | **55 A** | **58 A** |
| 10% Modulus | DIN 53504 | MPa | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 |
| 100% Modulus | DIN 53504 | MPa | 0.4 | 1.0 | 1.2 | 1.3 | 1.8 | 2.1 | 2.5 |
| 200% Modulus | DIN 53504 | MPa | 0.7 | 1.6 | 1.8 | 2.2 | 2.8 | 3.4 | 3.9 |
| 300% Modulus | DIN 53504 | MPa | 1 | 2.4 | 3.0 | 3.5 | 4.5 | 5.5 | 6.8 |
| Tensile strength | DIN 53504 | MPa | 4 | 13 | 20 | 24 | 28 | 34 | 40 |
| Elongation | DIN 53504 | % | 510 | 460 | 460 | 440 | 420 | 420 | 400 |
| Tear strength : without nick | ISO 34-1 | kN/m | 10 | 20 | 22 | 24 | 30 | 35 | 40 |
| Tear strength : with nick | ISO 34-1 | kN/m | 2 | 5 | 6 | 6 | 7 | 8 | 9 |
| Resilience | DIN 53512 | % | 36 | 29 | 25 | 22 | 14 | 11 | 9 |
| Abrasion loss | ISO 815-1 | mm³ | - | > 200 | 200 | 150 | 120 | 100 | 80 |
| Compression set (deflection / 22 h / 70 °C) | ISO 4649 | % | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Hardness at -5°C | ISO 48-4 | Shore | 43A | 43 A | 48 A | 54 A | 62 A | 65 A | 69 A |
| Hardness at 80°C | ISO 48-4 | Shore | 20A | 35 A | 40 A | 45 A | 50 A | 55 A | 58 A |
| Specific gravity | | | 1.22 | 1.22 | 1.23 | 1.25 | 1.25 | 1.25 | 1.26 |

Depending on process conditions, curing and post curing temperature, hardness may vary from ± 2 Shore.

**Labelling** : This system data sheet is only valid in combination with the corresponding components current safety data sheets ! Any updating of safety relevant information – in accordance with EU directives – will only be reflected in the Safety Data Sheets, copies of which will be revised and distributed. For further technical information relating to safety, the Safety Data Sheets should be consulted.

# DESMODUR® TD6400 + BAYTEC® XL TMP + PLASTICIZER V10 (Catalyst SD6-40)

20 to 58 Shore A

| STORAGE AND USE PRECAUTIONS | | | | |
|---|---|---|---|---|
| | Unit | **DESMODUR® TD6400** | **BAYTEC® XL TMP** | **PLASTICIZER V10** |
| Optimal storage temperature of the drums | °C | < 30 | < 30 | < 30 |
| Storage time (sealed drum) | Month | 12 | 12 | 12 |
| **PREPARATION BEFORE PROCESSING** | | | | |
| Preheating time / preheating temperature | hr / °C | 24 / 70 | 12 / 80 | 12 / 80 |
| Homogenization before processing required | - | no | no | no |
| Degassing required | - | yes | no | no |

Keep from heat and protect against moisture.

| PROCESSING | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Prepolymer** | | **DESMODUR® TD6400** | | | | | | |
| **Chain extender** | | **BAYTEC® XL TMP + PLASTICIZER V10 (Catalyst SD6-40)** | | | | | | |
| **Hardness** | **Shore** | **20A** | **35 A** | **40 A** | **45 A** | **50 A** | **55 A** | **58 A** |
| Prepolymer processing temperature | °C | 80 | | | | | | |
| BAYTEC® XL TMP processing temperature | °C | 90 | | | | | | |
| PLASTICIZER V 10 processing temperature | °C | 80 | | | | | | |
| **Parts by weight of prepolymer** | | **100** | **100** | **100** | **100** | **100** | **100** | **100** |
| **Parts by weight of BAYTEC® XL TMP** | | **4.1** | **4.3** | **4.3** | **4.3** | **4.3** | **4.3** | **4.3** |
| **Parts by weight of PLASTICIZER V10** | | **65** | **35** | **28** | **20** | **10** | **5** | **-** |
| **Catalyst SD6-40** % / total (by weight) (catalyst at the head) | | **1.0** | **0.5** | **0.35** | **0.15** | **0.12** | **0.1** | **0.08** |
| **MOLDING AND CURING** | | | | | | | | |
| **Mold temperature** | °C | 110 | | | | | | |
| **Pot life** (400g mixture with catalyst)* **in a non heated pot** | min | 18’ | 18’ | 18’ | 15’ | 12’ | 12’ | 12’ |
| **Demolding time (with catalyst)** | min | 60’ | 60’ | 60’ | 60’ | 60’ | 60’ | 60’ |
| **Post-curing** | hr / °C | 16 / 110 | | | | | | |

* Possibility to shorten or lengthen the pot life by increasing or decreasing the catalyst quantity.

Use of degassing agent is recommended for hand casting.

A one week aging at room temperature is required to obtain the optimal properties of the elastomer.