



# DESMODUR® TD6xx + BAYTEC® XL 1705

75 to 90 Shore A

NATURE OF COMPONENTS		
Prepolymer nature	Nature of chain extender and other components	
TDI - Ester	BAYTEC® XL 1705	Amine chain extender

CHARACTERISTICS OF COMPONENTS						
	Unit	DESMODUR® TD630	DESMODUR® TD636	DESMODUR® TD643	DESMODUR® TD651	BAYTEC® XL 1705
% NCO	%	3.25 (± 0.2)	3.60 (± 0.2)	4.30 (± 0.2)	5.20 (± 0.2)	-
Physical appearance at room temperature	-	solid	solid	solid	solid	liquid
Processing temperature	°C	80	80	80	80	30
Viscosity at processing temperature	cps	2550	2000	2000	1500	300
Specific gravity at processing temperature	-	1.18	1.19	1.19	1.19	1.21

ELASTOMER TYPICAL PROPERTIES (DATA GIVEN AS AN INDICATION)						
Prepolymer			DESMODUR® TD630	DESMODUR® TD636	DESMODUR® TD643	DESMODUR® TD651
Chain extender			BAYTEC® XL 1705	BAYTEC® XL 1705	BAYTEC® XL 1705	BAYTEC® XL 1705
Hardness at 23°C	ISO 48-4	Shore	75 A	80 A	87 A	90 A
10% Modulus	DIN 53504	MPa	1.4	1.7	2.5	3.1
100% Modulus	DIN 53504	MPa	3.7	4.4	6.3	7.3
200% Modulus	DIN 53504	MPa	5.0	5.6	8.0	9.4
300% Modulus	DIN 53504	MPa	7.0	7.9	10.8	12.6
Tensile strength	DIN 53504	MPa	50	51	52	53
Elongation	DIN 53504	%	720	710	660	635
Tear strength : without nick	ISO 34-1	kN/m	80	88	107	115
Tear strength : with nick	ISO 34-1	kN/m	42	45	60	76
Resilience	DIN 53512	%	40	42	32	30
Abrasion loss	ISO 4649	mm³	43	40	55	55
Compression set (deflection / 22 h / 70 °C)	ISO 815-1	%	30	30	31	-
Hardness at -5°C	ISO 48-4	Shore	78 A	85 A	91 A	97 A
Hardness at 80°C	ISO 48-4	Shore	72 A	77 A	85 A	85 A
Specific gravity			1.24	1.24	1.25	1.25

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.

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STORAGE AND USE PRECAUTIONS						
	Unit	DESMODUR® TD630	DESMODUR® TD636	DESMODUR® TD643	DESMODUR® TD651	BAYTEC® XL 1705
Optimal storage temperature of the drums	°C	< 30	< 30	< 30	< 30	< 30
Storage time (sealed drum)	Month	12	12	12	12	12
PREPARATION BEFORE PROCESSING						
Preheating time / preheating temperature	hr / °C	24 / 70				-
Homogenization before processing required	-	no	no	no	no	no
Degassing required	-	yes	yes	yes	yes	no

Keep from heat and protect against moisture.

PROCESSING					
Prepolymer		DESMODUR® TD630	DESMODUR® TD636	DESMODUR® TD643	DESMODUR® TD651
Chain extender		BAYTEC® XL 1705	BAYTEC® XL 1705	BAYTEC® XL 1705	BAYTEC® XL 1705
Hardness	Shore	75 A	80 A	87 A	90 A
Prepolymer processing temperature	°C	80			
BAYTEC® XL 1705 processing temperature	°C	30			
Parts by weight of prepolymer		100	100	100	100
Parts by weight of BAYTEC® XL 1705		8.3	8.7	10.4	12.3
MOLDING AND CURING					
Mold temperature	°C	110			
Pot life (400g mixture)	min	4'	3'30"	2'30"	2'35"
Demolding time	min	25'	35'	20'	23'
Post-curing	hr / °C	16 / 110			

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.

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