DESMODUR® TL53x + BAYTEC® XL 1705

75 to 80 Shore A

NATURE OF COMPONENTS

Prepolymer nature	Nature of chain extender and other components	
TDI - Caprolactone	BAYTEC® XL 1705	Amine chain extender

CHARACTERISTICS OF COMPONENTS

	Unit	DESMODUR® TL533	DESMODUR® TL535	BAYTEC® XL 1705
% NCO	%	3.45 (± 0.2)	3.85 (± 0.2)	-
Physical appearance at room temperature	-	solid	solid	liquid
Processing temperature	°C	80	80	30
Viscosity at processing temperature	cps	2000	1600	300
Specific gravity at processing temperature	-	1.10	1.10	1.21

ELASTOMER TYPICAL PROPERTIES (DATA GIVEN AS AN INDICATION)

Prepolymer			**DESMODUR® TL533**	**DESMODUR® TL535**
Chain extender			**BAYTEC® XL 1705**	**BAYTEC® XL 1705**
Hardness at 23°C	**ISO 48-4**	**Shore**	**75 A**	**80 A**
10% Modulus	DIN 53504	MPa	1.3	1.9
100% Modulus	DIN 53504	MPa	4.3	5.9
200% Modulus	DIN 53504	MPa	6.6	8.9
300% Modulus	DIN 53504	MPa	10.8	13.8
Tensile strength	DIN 53504	MPa	42	49
Elongation	DIN 53504	%	430	450
Tear strength : without nick	ISO 34-1	kN/m	56	72
Tear strength : with nick	ISO 34-1	kN/m	17	25
Resilience	DIN 53512	%	38	37
Abrasion loss	ISO 4649	mm^3	35	45
Compression set (25% deflection / 22 h / 70 °C)	ISO 815-1	%	38	30
Hardness at -5°C	ISO 48-4	Shore	77 A	82 A
Hardness at 80°C	ISO 48-4	Shore	71 A	77 A
Specific gravity			1.15	1.16

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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Covestro Elastomers SAS is certified ISO 9001 : 2008

version 02

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STORAGE AND USE PRECAUTIONS				
	Unit	DESMODUR® TL533	DESMODUR® TL535	BAYTEC® XL 1705
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		-
Homogenization before processing required	-	no		no
Degassing required	-	yes		no

Keep from heat and protect against moisture.

PROCESSING			
Prepolymer		DESMODUR® TL533	DESMODUR® TL535
Chain extender		BAYTEC® XL 1705	BAYTEC® XL 1705
Hardness	**Shore**	**75 A**	**80 A**
Prepolymer processing temperature	°C	80	
BAYTEC® XL 1705 processing temperature	°C	30	
Parts by weight of prepolymer		**100**	**100**
Parts by weight of BAYTEC® XL 1705		**8.3**	**9.3**
MOLDING AND CURING			
Mold temperature	°C	100	
Pot life (400g mixture)	min	15’	9’
Demolding time	min	60’	60’
Post-curing	hr / °C	16 / 90	

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.