DESMODUR® MD1578 + BAYTEC® D20 + BAYTEC® XL B (SD11-2 catalyst)

55 to 95 Shore A

NATURE OF COMPONENTS

Prepolymer nature	Nature of chain extender and other components	
MDI - Ester	BAYTEC® D20	Ester formulated polyol
	BAYTEC® XL B	Alcohol chain extender

CHARACTERISTICS OF COMPONENTS

	Unit	DESMODUR® MD1578	BAYTEC® D20	BAYTEC® XL B
% NCO	%	7.80 (± 0.2)	-	-
Physical appearance at room temperature	-	solid	solid	solid
Processing temperature	℃	80	60	45
Viscosity at processing temperature	cps	1500	2000	30
Specific gravity at processing temperature	-	1.14	1.15	1.01

ELASTOMER TYPICAL PROPERTIES (DATA GIVEN AS AN INDICATION)

Prepolymer			DESMODUR® MD1578								
Chain extender			BAYTEC® D20 + BAYTEC® XL B								
Hardness at 20℃	DIN 53505	Shore	55 A	60 A	65 A	70 A	75 A	80 A	85 A	90 A	95 A
10% Modulus	DIN 53504	MPa	0.6	0.7	0.9	0.9	1.3	2.0	2.1	2.7	5.9
100% Modulus	DIN 53504	MPa	1.7	2.1	2.6	2.9	3.3	4.1	5.3	6.4	11.0
200% Modulus	DIN 53504	MPa	2.1	2.8	3.6	4.0	4.4	5.3	7.2	8.9	14.0
300% Modulus	DIN 53504	MPa	2.8	3.8	4.9	5.6	5.9	6.7	9.9	12.0	19.0
Tensile strength	DIN 53504	MPa	32	34	35	38	44	45	51	51	53
Elongation	DIN 53504	%	625	600	580	520	510	500	500	480	480
Tear strength : without nick	ISO 34-1	kN/m	37	40	44	61	65	75	88	99	140
Tear strength : with nick	ISO 34-1	kN/m	20	24	28	31	33	37	38	40	76
Resilience	DIN 53512	%	60	58	58	58	58	55	50	50	48
Abrasion loss	ISO 4649	mm³	60	60	60	60	60	60	60	55	50
Compression set (deflection / 22 h / 70 ℃)	ISO 815-1	%	30	33	33	33	33	33	35	35	35
Hardness at -5℃	DIN 53505	Shore	56 A	61 A	66 A	71 A	76 A	81 A	88 A	92 A	97 A
Hardness at 80℃	DIN 53505	Shore	45 A	50 A	55 A	62 A	66 A	70 A	77 A	86 A	94 A
Specific gravity			1.21	1.19	1.20	1.20	1.20	1.20	1.20	1.20	1.21

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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55 to 95 Shore A

STORAGE AND USE PRECAUTIONS				
	Unit	DESMODUR® MD1578	BAYTEC® D20	BAYTEC® XL B
Optimal storage temperature of the drums	℃	< 30	< 30	< 30
Storage time (sealed drum)	Month	6	12	12
PREPARATION BEFORE PROCESSING				
Preheating time / preheating temperature	h / ℃	24 / 80	24 / 80	12 / 45
Homogenization before processing required	-	no	no	no
Degassing required	-	yes	yes	yes

Keep from heat and protect against moisture.

PROCESSING										
Prepolymer		DESMODUR® MD1578								
Chain extender		BAYTEC® D20 + BAYTEC® XL B								
Hardness	**Shore**	**55 A**	**60 A**	**65 A**	**70 A**	**75 A**	**80 A**	**85 A**	**90 A**	**95 A**
Prepolymer processing temperature	℃	80								
BAYTEC® D20 processing temperature	℃	60								
BAYTEC® XL B processing temperature	℃	45								
Parts by weight of prepolymer		**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Parts by weight of BAYTEC® D20		**92**	**82**	**72**	**60**	**52**	**42**	**30**	**20**	**-**
Parts by weight of BAYTEC® XL B		**4.1**	**4.5**	**5.0**	**5.5**	**5.9**	**6.3**	**6.8**	**7.3**	**8.2**
SD11-2 catalyst % / total (by weight), (catalyst at the head)		**0.50**	**0.43**	**0.34**	**0.25**	**0.15**	**0.06**	**0.06**	**0.04**	**0.04**
MOLDING AND CURING										
Mold temperature	℃	115								
Pot life (400g mixture)*	min	4'30''	4'30''	4'30''	4'30''	4'30''	3'30''	3'	2'	1'10''
Demolding time	min	60'	60'	45'	40'	40'	30'	30'	30'	20'
Waiting time at room temperature	hr	5								
Post-curing	hr - ℃	16 - 110								

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

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Covestro Elastomers SAS is certified ISO 9001 : 2008

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