DESMODUR® MD1380 + BAYTEC® D21 + BAYTEC® XL B (Catalyst SD2-40)

65 to 90 Shore A

NATURE OF COMPONENTS

Prepolymer nature	Nature of chain extender and other components	
MDI - Ester	BAYTEC® D21	Ester polyol
	BAYTEC® XL B	Alcohol chain extender

CHARACTERISTICS OF COMPONENTS

	Unit	DESMODUR® MD1380	BAYTEC® D21	BAYTEC® XL B
% NCO	%	8.55 (± 0.2)	-	-
Physical appearance at room temperature	-	solid	solid	solid
Processing temperature	℃	80	60	45
Viscosity at processing temperature	cps	1200	1100	30
Specific gravity at processing temperature	-	1.15	1.13	1.01

ELASTOMER TYPICAL PROPERTIES (DATA GIVEN AS AN INDICATION)

Prepolymer			**DESMODUR® MD1380**					
Chain extender			**BAYTEC® D21 + BAYTEC® XL B (Catalyst SD2-40)**					
Hardness at 20℃	**DIN 53505**	**Shore**	**65A (*)**	**70 A**	**75 A**	**80 A**	**85 A**	**90 A**
10% Modulus	DIN 53504	MPa	0.6	0.8	1.2	1.7	2.0	2.9
100% Modulus	DIN 53504	MPa	2.6	3.2	4.5	5.5	6.0	8.0
200% Modulus	DIN 53504	MPa	3.7	4.5	6.0	7.5	8.0	11.0
300% Modulus	DIN 53504	MPa	5.1	6.5	8.0	9.5	10.0	14.5
Tensile strength	DIN 53504	MPa	45	27	27	44	45	46
Elongation	DIN 53504	%	550	500	500	540	550	550
Tear strength : without nick	ISO 34-1	kN/m	66	72	84	91	100	110
Tear strength : with nick	ISO 34-1	kN/m	29	26	29	44	48	49
Resilience	DIN 53512	%	62	53	48	45	40	35
Abrasion loss	ISO 4649	mm³	35	35	35	35	40	45
Compression set (deflection / 22 h / 70 ℃)	ISO 815-1	%	50	23	24	25	25	25
Hardness at -5℃	DIN 53505	Shore	68A	72 A	78 A	83 A	88 A	93 A
Hardness at 80℃	DIN 53505	Shore	63A	68 A	72 A	77 A	82 A	88 A
Specific gravity			1.20	1.21	1.21	1.21	1.21	1.20

(*) depending on process conditions, curing and post-curing temperatures, hardness may vary with a derivation of ± 3 Shore A

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

DESMODUR® MD1380 + BAYTEC® D21 + BAYTEC® XL B (Catalyst SD2-40)

65 to 90 Shore A

STORAGE AND USE PRECAUTIONS				
	Unit	**DESMODUR® MD1380**	**BAYTEC® D21**	**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	hr / ℃	12 / 60		12 / 45
Homogenization before processing required	-	no	no	no
Degassing required	-	yes	yes	no

Keep from heat and protect against moisture.

PROCESSING							
Prepolymer		**DESMODUR® MD1380**					
Chain extender		**BAYTEC® D21 + BAYTEC® XL B (Catalyst SD2-40)**					
Hardness	**Shore**	**65 A**	**70 A**	**75 A**	**80 A**	**85 A**	**90 A**
Prepolymer processing temperature	℃	80					
BAYTEC® D21 processing temperature	℃	60					
BAYTEC® XL B processing temperature	℃	45					
Parts by weight of prepolymer		**100**	**100**	**100**	**100**	**100**	**100**
Parts by weight of BAYTEC® D21		**60**	**45**	**30**	**20**	**10**	**0**
Parts by weight of BAYTEC® XL B		**6.3**	**6.7**	**7.4**	**7.8**	**8.3**	**8.7**
Or **SD2-40** % / BAYTEC® XL B (by weight), to mix with BAYTEC® XL B		**4.5**	**3.3**	**2.1**	**1.6**	**1.2**	**0**
Or **SD2-40** % / total (by weight), (catalyst at the head)		**0.17**	**0.15**	**0.11**	**0.10**	**0.08**	**0**
MOLDING AND CURING							
Mold temperature	℃	110					
Pot life (400g mixture)*	min	2’	2’45’’	2’	1’45’’	1’30’’	2’30’’
Demolding time	min	20’	20’	20’	15’	15’	25’
Waiting time at room temperature before post-curing	hr	5					
Post-curing	hr - ℃	16 / 110 **					

* Possibility to shorten or lengthen the pot life by increasing or decreasing the catalyst quantity.
** For specific applications (optimisation of dynamical properties or massive parts), please consult our Sales Department for additional information on post-curing conditions.
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.

The following information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our advice concerning safety does not release you from the obligation to determine the safety measures designed for your production environment, that we may not be able to anticipate, to check abilities and to inform the people who will use, handle or be in contact with these products.

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