



DESMODUR® MDQ24163 + BAYTEC® D24 + BAYTEC® XL B (Catalyst SD2.4-N)

55 Shore A
to 55 Shore D

NATURE OF COMPONENTS		
Prepolymer nature	Nature of chain extender and other components	
	MDI - Ester	BAYTEC® D24 BAYTEC® XL B
		Ester formulated polyol Alcohol chain extender

CHARACTERISTICS OF COMPONENTS				
	Unit	DESMODUR® MDQ24163	BAYTEC® D24	BAYTEC® XL B
% NCO	%	16.40 (± 0.2)	-	-
Physical appearance at room temperature	-	liquid	solid	solid
Processing temperature	°C	40	50	40
Viscosity at processing temperature	cps	1200	2000	30
Specific gravity at processing temperature	-	1.17	1.17	1.01

ELASTOMER OPTIMAL PROPERTIES (DATA GIVEN AS AN INDICATION)													
Prepolymer	Chain extender	DESMODUR® MDQ24163											
		BAYTEC® D24 + BAYTEC® XL B											
Hardness at 23°C	ISO 48-4	Shore	55 A (*)	60 A (*)	65 A (*)	70 A (*)	75 A (*)	80 A (**)	85 A (**)	90A (**)	93 A (**)	95 A (**)	55 D (**)
10% Modulus	DIN 53504	MPa	0.5	0.6	0.7	1.0	1.2	1.6	2.3	3.1	3.9	4.9	9.8
100% Modulus	DIN 53504	MPa	1.8	2.3	2.9	3.8	4.5	5.3	6.9	8.4	9.9	11.2	16.8
200% Modulus	DIN 53504	MPa	2.3	3.1	4.1	5.6	6.7	7.8	10.3	11.6	14.0	14.8	19.5
300% Modulus	DIN 53504	MPa	2.9	4.3	5.8	8.2	9.6	11.4	15.2	16.0	19.7	20.5	22.0
Tensile strength	DIN 53504	MPa	31	37	43	54	56	56	57	56	63	47	30
Elongation at break	DIN 53504	%	615	550	530	520	520	520	515	515	506	465	556
Tear strength : without nick	ISO 34-1	kN/m	37	48	61	73	80	92	105	120	135	138	191
Tear strength : with nick	ISO 34-1	kN/m	21	22	24	25	27	30	41	53	63	76	88
Resilience	DIN 53512	%	65	63	59	55	54	53	49	46	45	45	40
Abrasion loss	ISO 4649	mm³	40	40	40	40	40	45	45	45	47	50	-
Abrasion loss with 0,3% AAA additive	ISO 4649	mm³	20	20	20	20	20	25	25	30	30	30	20
Compression set (22 h / 70 °C)	ISO 815-1	%	46	44	41	39	38	25	25	25	27	27	-
Hardness at -5°C	ISO 48-4	Shore	61 A	65 A	70 A	77 A	81 A	85 A	91 A	93 A	94 A	96 A	59 D
Hardness at 80°C	ISO 48-4	Shore	53 A	59 A	64 A	68 A	73 A	79 A	84 A	88 A	90 A	93 A	97 A
Specific gravity			1.20	1.21	1.21	1.21	1.21	1.21	1.22	1.22	1.22	1.22	1.23

* Depending on process conditions, curing and post curing temperature, hardness may vary with a derivation of (*) ± 3 Shore A or (**) ± 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® MDQ24163	BAYTEC® D24	BAYTEC® XL B
Optimal storage temperature of the drums	°C	< 30	< 30	< 30
Storage time (sealed drum)	Month	6	12	12
PREPARATION BEFORE PROCESSING				
Preheating time / preheating temperature	hr / °C	24 / 60***	24 / 70	12 / 35
Homogenization before processing required	-	no	no	no
Degassing required	-	yes	yes	no

Keep from heat and protect against moisture.

***+2hrs/80°C in case prepolymer is still partially solid. Up to 8hrs / 80°C

PROCESSING												
Prepolymer		DESMODUR® MDQ24163										
Chain extender		BAYTEC® D24 + BAYTEC® XL B										
Hardness	Shore	55 A (*)	60 A (*)	65 A (*)	70 A (*)	75 A (*)	80 A (**)	85 A (**)	90A (**)	93 A (**)	95 A (**)	55 D (**)
Prepolymer processing temperature	°C	40										
BAYTEC® D24 processing temperature	°C	50										
BAYTEC® XL B processing temperature	°C	40										
Parts by weight of prepolymer		100	100	100	100	100	100	100	100	100	100	100
Parts by weight of BAYTEC® D24		230	200	170	150	125	105	80	70	60	50	25
Parts by weight of BAYTEC® XL B		7.3	8.6	9.9	10.8	11.9	12.8	13.9	14.3	14.9	15.2	16.5
Catalyst SD2.4-N % / total (by weight) catalyst at the head **		0.40	0.35	0.35	0.30	0.25	0.25	0.20	0.15	0.15	0.15	0.15

MOLDING AND CURING												
Mold temperature	°C	80										
Pot life (400g mixture in a non heated pot)	min	4'30"	4'30"	4'10"	3'50"	3'45"	3'30"	3'15"	3'15"	3'	2'40"	1'45"
Demolding time	min	30'	30'	30'	30'	30'	30'	30'	30'	30'	30'	30'
Post-curing	hr - °C	16 – 80****										

* Depending on process conditions, curing and post curing temperature, hardness may vary with a derivation of (*) ± 3 Shore A or (**) ± 2 Shore.

** An another specific catalyst is also available under the name SD2.4MF.2-N.

**** 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 1 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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Version	06
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