



DESMODUR® MDQ23165 + BAYTEC® D22-70 + BAYTEC® XL B (Catalyst SD16 or SD16-3)

55 Shore A
to 55 Shore D

NATURE OF COMPONENTS		
Prepolymer nature	Nature of chain extender and other components	
MDI - Ester	BAYTEC® D22-70	Ester formulated polyol
	BAYTEC® XL B	Alcohol chain extender

CHARACTERISTICS OF COMPONENTS				
	Unit	DESMODUR® MDQ23165	BAYTEC® D22-70	BAYTEC® XL B
% NCO	%	16.40 (± 0.2)	-	-
Physical appearance at room temperature	-	liquid	solid	solid
Processing temperature	°C	45	70	35
Viscosity at processing temperature	cps	700	650	50
Specific gravity at processing temperature	-	1.17	1.17	1.01

ELASTOMER OPTIMAL PROPERTIES (DATA GIVEN AS AN INDICATION)												
Prepolymer	Chain extender	DESMODUR® MDQ23165 BAYTEC® D22-70 + BAYTEC® XL B										
		DIN 53505	Shore	55 A (*)	60 A (*)	65 A (*)	70 A (*)	75 A (*)	80 A	85 A	90 A	95 A
Hardness at 20°C	DIN 53505	MPa	0.6	0.8	0.9	1.2	1.5	1.7	2.3	3.0	5.6	13.4
10% Modulus	DIN 53504	MPa	1.7	2.5	3.0	3.9	4.8	5.5	6.8	8.2	11.6	16.2
200% Modulus	DIN 53504	MPa	2.2	3.5	4.3	5.9	7.1	8.3	10.0	11.4	14.2	17.1
300% Modulus	DIN 53504	MPa	2.9	5.0	5.9	8.6	10.1	11.7	13.4	15.6	16.9	18.8
Tensile strength	DIN 53504	MPa	41	46	48	50	43	47	48	57	39	33
Elongation at break	DIN 53504	%	625	600	600	600	600	585	600	600	625	600
Tear strength : without nick	ISO 34-1	kN/m	40	57	63	76	84	90	105	107	130	144
Tear strength : with nick	ISO 34-1	kN/m	23	33	35	38	38	41	50	58	86	117
Resilience	DIN 53512	%	50	50	48	44	43	42	42	40	39	38
Abrasion loss	ISO 4649	mm³	35	35	35	40	40	45	50	50	50	45
Compression set (22 h / 70 °C)	ISO 815-1	%	35	34	29	26	26	24	23	26	31	-
Hardness at -5°C	DIN 53505	Shore	61 A	68 A	72 A	77 A	82 A	86 A	90 A	93 A	97 A	63 D
Hardness at 80°C	DIN 53505	Shore	48 A	56 A	62 A	66 A	71 A	75 A	82 A	87 A	92 A	51 D
Specific gravity			1.20	1.22	1.23	1.23	1.24	1.24	1.24	1.25	1.25	1.26

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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to 55 Shore D

STORAGE AND USE PRECAUTIONS				
	Unit	DESMODUR® MDQ23165	BAYTEC® D22-70	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	12 / 45	48 / 80	12 / 35
Homogenization before processing required	-	no	yes	no
Degassing required	-	yes	yes	no

Keep from heat and protect against moisture.

PROCESSING												
Prepolymer		DESMODUR® MDQ23165										
Chain extender		BAYTEC® D22-70 + BAYTEC® XL B										
Hardness	Shore	55 A (*)	60 A (*)	65 A (*)	70 A (*)	75 A (*)	80 A	85 A	90 A	95 A	55 D	
Prepolymer processing temperature	°C	45										
BAYTEC® D22-70 processing temperature	°C	70										
BAYTEC® XL B processing temperature	°C	35										
Parts by weight of prepolymer		100	100	100	100	100	100	100	100	100	100	
Parts by weight of BAYTEC® D22-70		200	190	160	130	115	100	80	70	50	30	
Parts by weight of BAYTEC® XL B		8.1	8.6	10.1	11.5	12.2	12.9	13.9	14.3	15.3	16.2	
Or	SD16% / total (by weight), (catalyst at the head)	0.25	0.25	0.20	0.15	0.12	0.12	0.08	0.05	0.05	0.05	
	SD16-3% / total (by weight), (catalyst at the head)	%	0.75	0.75	0.60	0.45	0.36	0.36	0.24	0.15	0.15	
MOLDING AND CURING												
Mold temperature	°C	80							100			
Pot life (400g mixture in a non heated pot)	min	5'	4'45"	4'45"	4'45"	4'15"	3'50"	3'40"	3'15"	3'15"	2'35"	
Demolding time	min	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.

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.

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