



DESMODUR[®] ML34109 + BAYTEC[®] L20 + BAYTEC[®] XL 60 to 95 Shore A AL905 + SD11-3

NATURE OF COMPONENTS		
Prepolymer nature	Nature of chain extender and other components	
MDI- Caprolactone	BAYTEC [®] L20	Caprolactone formulated polyol
	BAYTEC [®] XL AL905	Alcohol chain extender

CHARACTERISTICS OF COMPONENTS				
	Unit	DESMODUR [®] ML34109	BAYTEC [®] L20	BAYTEC [®] AL 905
% NCO	%	10.9 (± 0.2)	-	-
Physical appearance at room temperature	-	solid	solid	solid
Processing temperature	°C	70	60	45
Viscosity at processing temperature	cps	700	500	30
Specific gravity at processing temperature	-	1.13	1.04	1.01

ELASTOMER TYPICAL PROPERTIES (DATA GIVEN AS AN INDICATION)										
Prepolymer			DESMODUR [®] ML34109							
Chain extender			BAYTEC [®] L20 + BAYTEC [®] AL 905							
Hardness at 23°C	ISO 48-4	Shore	60 A (*)	65 A (*)	70 A (*)	75 A	80 A	85 A	90 A	95 A
10% Modulus	DIN 53504	MPa	0.5	0.9	1.0	1.3	1.7	2.4	3.4	4.8
100% Modulus	DIN 53504	MPa	1.7	2.6	3.0	3.7	4.8	6.7	9.1	12
200% Modulus	DIN 53504	MPa	2.1	3.6	4.3	5.7	7.5	10.4	14.1	18.7
300% Modulus	DIN 53504	MPa	2.7	5.4	6.8	9.4	12.6	17.2	23.1	30
Tensile strength	DIN 53504	MPa	31	44	50	50	55	55	55	48
Elongation	DIN 53504	%	560	500	500	480	480	480	480	415
Tear strength : without nick	ISO 34-1	kN/m	39	54	65	76	88	102	124	136
Tear strength : with nick	ISO 34-1	kN/m	25	26	26	28	33	40	57	75
Resilience	DIN 53512	%	75	72	70	65	60	55	47	40
Abrasion loss	Without AAA	ISO 4649	mm ³	40	40	40	40	45	45	45
	With AAA	ISO 4649	mm ³	25	25	25	25	30	30	30
Compression set (deflection / 22 h / 70 °C)	ISO 815-1	%	20	20	20	20	20	22	22	20
Hardness at -5°C	ISO 48-4	Shore	63 A	68 A	74 A	77 A	82 A	87 A	92A	97 A
Hardness at 80°C	ISO 48-4	Shore	55 A	60 A	70 A	70 A	75 A	81A	86A	92 A
Specific gravity			1.13	1.13	1.14	1.15	1.16	1.17	1.18	1.18

(*) Exposition to low temperatures creates reversible crystallization behavior
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.



DESMODUR® ML34109 + BAYTEC® L20 + BAYTEC® XL 60 to 95 Shore A AL905 + SD11-3

STORAGE AND USE PRECAUTIONS				
	Unit	DESMODUR® ML34109	BAYTEC® L20	BAYTEC® AL 905
Optimal storage temperature of the drums	°C	< 30	< 30	< 30
Storage time (sealed drum)	Month	6	12	12
Preheating time / preheating temperature	hr / °C	12/80 (**)	48/80 (**)	12/45
Homogenization before processing required	-	no	no	no
Degassing required	-	yes	yes	yes

Keep from heat and protect against moisture. (**) additional + 12 hrs / 80°C cycle in case product is still partially solid. Up to additional 24hrs / 80°C as a maximum.

PROCESSING									
Prepolymer		DESMODUR® ML34109							
Chain extender		BAYTEC® L20 + BAYTEC® AL 905							
Hardness	Shore	60 A (*)	65 A (*)	70 A (*)	75 A	80 A	85 A	90 A	95 A
Prepolymer processing temperature	°C	70							
BAYTEC® L20 processing temperature		60							
BAYTEC® XL AL905 processing temperature	°C	45							
Parts by weight of prepolymer		100	100	100	100	100	100	100	100
Parts by weight of BAYTEC® L20		125	100	80	60	45	30	15	-
Parts by weight of BAYTEC® XL AL905		5.80	7.00	7.90	8.70	9.40	10.10	10.80	11.45
SD11-3 catalyst % / total (by weight), (catalyst at the head) **		0.45	0.35	0.30	0.23	0.17	0.12	0.10	0.08

MOLDING AND CURING									
Mold temperature	°C	110							
Pot life with SD11-3 catalyst (400g mixture) **	min	3'	3'	3'	3'	3'	3'	2'30	2'15
Demolding time with SD11-3 catalyst	min	40'	40'	40'	40'	40'	40'	35'	20'
Post-curing	hr - °C	16 / 110							

Use of degassing agent is recommended for hand casting.

(*)Exposition to low temperatures creates reversible crystallization behavior

(**) Possibility to shorten the pot life by increasing the catalyst amount – present indication given as the minimum rate

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.