



DESMODUR® TS35 + DESMOPHEN® 2001KS + BAYTEC® XL 1705

50 to 85 Shore A

NATURE OF COMPONENTS		
Prepolymer nature	Nature of chain extender and other components	
TDI-Ester	2001KS	Ester polyol
	XL 1705	Amine chain extender

CARACTERISTIQUES DES COMPOSANTS				
	Unit	DESMODUR® TS35	DESMOPHEN® 2001KS	BAYTEC® XL 1705
% NCO	%	3.50 (± 0.25)	-	-
Physical appearance at room temperature	-	liquid	solid	liquid
Processing temperature	°C	80	80	30
Viscosity at processing temperature	cps	1600	900	300
Specific gravity at processing temperature	-	1.15	1.10	1.21

ELASTOMER TYPICAL PROPERTIES (DATA GIVEN AS AN INDICATION)										
Prepolymer	DESMODUR® TS35									
	DESMOPHEN® 2001KS + BAYTEC® XL 1705									
Chain extender	ISO 48-4	Shore	50 A (*)	55 A (*)	60 A (*)	65 A (**)	70 A (**)	75 A (**)	80 A (**)	85 A (**)
Hardness at 23°C										
10% Modulus	DIN 53504	MPa	0.4	0.5	0.8	0.9	1.2	2.0	2.1	2.4
100% Modulus	DIN 53504	MPa	1.2	1.6	1.8	2.7	3.0	4.5	5	5.6
200% Modulus	DIN 53504	MPa	1.6	2.1	2.3	3.6	3.8	5.7	6.5	7.1
300% Modulus	DIN 53504	MPa	1.8	2.6	2.7	4.0	4.5	7.0	8.0	8.3
Tensile strength	DIN 53504	MPa	19	24	31	35	40	51	53	55
Elongation	DIN 53504	%	1040	860	800	790	760	700	680	650
Tear strength : without nick	ISO 34-1	kN/m	32	36	42	49	61	72	81	96
Tear strength : with nick	ISO 34-1	kN/m	18	20	25	29	30	35	42	52
Resilience	DIN 53512	%	46	51	50	50	50	49	47	46
Abrasion loss with 0.3% AAA	ISO 4649	mm³	53	50	50	45	45	43	40	40
Compression set (22 h / 70 °C)	ISO 815-1	%	40	38	29	33	29	32	29	34
Hardness at -5°C	ISO 48-4	Shore	60A	62A	66A	73A	74A	83A	86A	90A
Hardness at 80°C	ISO 48-4	Shore	43A	50A	57A	65A	70A	76A	80A	83A
Specific gravity			1.20	1.21	1.21	1.21	1.22	1.22	1.22	1.23

(*) depending on process conditions, curing and post curing temperature, hardness may vary from ± 3 Shore A.

(**) depending on process conditions, curing and post curing temperature, hardness may vary from ± 2 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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STORAGE AND USE PRECAUTIONS

	Unit	DESMODUR® TS35	2001KS	BAYTEC® XL 1705
Optimal storage temperature of the drums	°C	< 30	< 30	< 30
Storage time (sealed drum)	Month	12	12	12

PREPARATION BEFORE PROCESSING					
Preheating time / preheating temperature	hr / °C	24 / 70			-
Homogenization before processing required	-	no	no	no	
Degassing required	-	yes	yes	yes	

Keep from heat and protect against moisture

PROCESSING

Prepolymer		DESMODUR® TS35							
Chain extender		DESMOPHEN® 2001KS + BAYTEC® XL 1705							
Hardness	Shore	50 A (*)	55 A (*)	60 A (*)	65 A (**)	70 A (**)	75 A (**)	80 A (**)	85 A (**)
Prepolymer processing temperature	°C	80							
DESMOPHEN® 2001KS processing temperature	°C	80							
BAYTEC® XL 1705 processing temperature	°C	25							
Parts by weight of prepolymer		100							
Parts by weight of DESMOPHEN® 2001KS		46	40	35	28	21	14	7	0
Parts by weight of BAYTEC® XL 1705		3.6	4.2	4.7	5.5	6.2	7.0	7.7	8.5

MOLDING AND CURING

Mold temperature	°C	110							
Pot life (400g mixture)	min	9'30	8'	6'	5'	4'	3'30	3'	2'30
Demolding time	min	90'	75'	50'	45'	35'	35'	35'	25'
Post-curing	hr / °C	16 / 100							

(*) depending on process conditions, curing and post curing temperature, hardness may vary from ± 3 Shore A.

(**) depending on process conditions, curing and post curing temperature, hardness may vary from ± 2 Shore A.

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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