



TDI - POLYCAPROLACTONE & POLYESTER

Polyurethane System	TDI - PolyCaprolactone		TDI - PolyEster			
Prepolymer	Andur® CL 6-0 APLF	Andur® 6 APLM	Andur® 7 APLM	Andur® 8 APFLM	Andur® 8 APFLM	Andur® 9-5 APLF
Curative (ratio by weight %)	Curene® 442	Curene® 442	Curene® 442	Curene® 442	Curene® 100 XPF	Curene® 49
Recommended Plasticizer			Andurflex 9-88SG	Andurflex 9-88SG		
% Plasticizer [†]			20%	50%		
Processing Characteristics	0.05	0.05	0.05	0.05	0.05	1.05
Stoichiometry Recommended Catalyst	0.95 oleic acid	0.95	0.95	0.95	0.95	1.05 Dabco® T-12
REFER TO INDIVIDUAL PREPO	LYMER DATASHEETS FOR	CASTING GUIDELINES. TE	EMPERATURE ADJUSTME	NTS MAY BE AVAILABLE O	R NECESSARY WHEN ADI	DING PLASTICIZERS.
Elastomer Properties						
Shore Hardness	57-63A	58-62A	62-66A	63-67A	55-65A	60-64A
Tensile, psi	4500	4200	3600	3360	3700	4560
100% Modulus, psi	240	260	300	340	250	380
300% Modulus, psi	430	430	430	480	450	2470
Elongation, %	540	510	810	900	560	320
Die C Tear (D624), pli	180	185	215	220	180	130
Split Tear (D1938), pli: AVG.	25	35	115	110	27	26
D395 Comp. Set, % (22 hrs @ 70°C)	10	5	58	49	3	0
D2632 Rebound, %	9	34	47	47	50	7
Attributes / Comments	Good solvent resistance;	Dry food contact				
	improved hydrolytic	improved hydrolytic	very tough	very tough	fairly tough; ultra low	approved; good solvent
	stability; fairly tough;	stability; fairly tough;			compression set	resistance; fairly tough;
	low compression set;	ultra low compression				ultra low compression
	very long potlife	set				set; low rebound (good
	without catalyst					energy absorber)
	William Cultury St					energy deserted.)
Disadvantages	Fair water/acid/base					
	resistance; may be					
	susceptable to microbes	<u> </u>	=	susceptable to microbes;	~	•
	•	*	poor compression set	poor compression set		•
			•			
FDA Approvable Composition						Yes; Dry ^{‡‡}

EW = Equivilent Weight * Triethanolamine (TEA) ** Dioctyl Adipate (DOA) ***Trimethylolpropane (TMP) † % Plasticizer based on prepolymer weight

^{‡,‡‡} This system is approvable for FDA applications involving [‡]wet food contact per 21 CFR 177.2600 & ^{‡‡}dry food contact per 21 CFR 177.1680





TDI-PTMEG

			IDI-I IMEG			
Polyurethane System Prepolymer	Andur® 80-5 AP	Andur® 80-5 AP	Andur® 85 APLF	Andur® 2-90 AP	Andur® 2-95 AP	Andur® 95 APLF
Curative (ratio by weight %)	Curene® 185	Curene® 93	Curene® 100 XPF	Curene® 93	Curene® 100 XPF	Curene® 100 XPF
Recommended Plasticizer % Plasticizer [†]						
Processing Characteristics Stoichiometry Recommended Catalyst	0.95	0.95 Dabco® T-12	0.95	1.05 Dabco® T-12	0.95	1.05
REFER TO INDIVIDUAL PREPOI	LYMER DATASHEETS FOR	R CASTING GUIDELINES. TI	EMPERATURE ADJUSTME	NTS MAY BE AVAILABLE C	R NECESSARY WHEN AD	DING PLASTICIZERS.
Elastomer Properties Shore Hardness Tensile, psi 100% Modulus, psi 300% Modulus, psi Elongation, % Die C Tear (D624), pli Split Tear (D1938), pli: AVG. D395 Comp. Set, % (22 hrs @ 70°C) D2632 Rebound, % Attributes / Comments	60-65A 2550 335 535 555 220 40 13 63 Good water/acid/base resistance; fairly tough with good dynamics; low compression set; high rebound	58-62A 460 460 330 170 97 4 0 75 Good water/acid/base resistance; good dynamics; ultra low compression set; high rebound	58-62A 765 315 690 300 145 8 2 74 Good water/acid/base resistance; good dynamics; ultra low compression set; high rebound	58-62A 480 310 *** 170 65 6 0 63 Good water/acid/base resistance; ultra low compression set; high rebound	60-64A 2100 330 800 350 120 15 0 28 Easy to process; good water/acid/base resistance; fairly tough; ultra low compression set	58-62A 4000 320 900 400 145 15 2 32 Easy to process; good water/acid/base resistance; fairly tough; ultra low compression set
Disadvantages	Poor solvent resistance	Poor solvent resistance; low tensile & tear strength	Poor solvent resistance; low tensile strength	Poor solvent resistance; low tensile & tear strength	Poor solvent resistance	Poor solvent resistance
FDA Approvable Composition						

EW = Equivilent Weight * Triethanolamine (TEA) ** Dioctyl Adipate (DOA) ***Trimethylolpropane (TMP) † % Plasticizer based on prepolymer weight

^{‡,‡‡} This system is approvable for FDA applications involving [‡]wet food contact per 21 CFR 177.2600 & ^{‡‡}dry food contact per 21 CFR 177.1680





TDI - PPG ETHER

		-				
Polyurethane System Prepolymer	Andur® 6000 AP	Andur® 6000 AP	Andur® 9000 AP	Andur® 9200 AP	Andur® 9500 AP	Andur® 9500 AP
Curative (ratio by weight %)	Curene® 442	Curene® 442	Curene® 185	Curene® 185	Curene® 93	Curene® 185
Recommended Plasticizer						
% Plasticizer [†]						
Processing Characteristics						
Stoichiometry	1.05	1.1	0.95	0.95	0.95	0.95
Recommended Catalyst					Dabco® T-12	
REFER TO INDIVIDUAL PREPO	LYMER DATASHEETS FOR	CASTING GUIDELINES. T	EMPERATURE ADJUSTME	NTS MAY BE AVAILABLE (OR NECESSARY WHEN AD	DING PLASTICIZERS.
Elastomer Properties						
Shore Hardness	55-65A	53-63A	54-60A	55-65A	58-66A	60-70A
Tensile, psi	525	625	1460	1975	790	1520
100% Modulus, psi	260	260	265	330	350	310
300% Modulus, psi	460	450	580	775	***	670
Elongation, %	340	420	465	435	230	455
Die C Tear (D624), pli	90	85	120	130	65	135
Split Tear (D1938), pli: AVG.	15	17	20	22	15	24
D395 Comp. Set, % (22 hrs @ 70°C)	18	22	10	9	0	13
D2632 Rebound, %	53	48	14	13	15	13
Attributes / Comments	Easy to process; good	Easy to process; good	Easy to process; good	Easy to process; good	Easy to process; good	Easy to process; good
	water/acid/base	water/acid/base	water/acid/base	water/acid/base	water/acid/base	water/acid/base
	resistance	resistance	resistance; fairly tough;	resistance; fairly tough;	resistance; ultra low	resistance; fairly tough;
			low compression set;	low compression set;	compression set; low	low compression set;
			low rebound (good	low rebound (good	rebound (good energy	low rebound (good
			energy absorber)	energy absorber)	absorber)	energy absorber)
			,	,		,
Disadvantages	Poor solvent resistance;	Poor solvent resistance;	Poor solvent resistance	Poor solvent resistance	Poor solvent resistance;	Poor solvent resistance
	low tensile & tear	low tensile & tear			low tensile & tear	
	strength	strength			strength	
FDA Approvable Composition						
TDA Approvable Composition						

EW = Equivilent Weight * Triethanolamine (TEA) ** Dioctyl Adipate (DOA) ***Trimethylolpropane (TMP) † % Plasticizer based on prepolymer weight

^{‡,‡‡} This system is approvable for FDA applications involving [‡]wet food contact per 21 CFR 177.2600 & ^{‡‡}dry food contact per 21 CFR 177.1680





MDI - POLYESTER & PTMEG

Polyurethane System	MDI -	PolyEster	MDI - PTMEG		
Prepolymer	Andur® M 8-5 AP	Andur® BA-M 9-3 AP	Andur® M 80 AP	Andur® M 93 AP	
	Curene® 45/ Curene® BA 1000	Curene® 45/ Curene® BA 1000	Curene® 45T6/ Curene® PTMG	Curene® 45/ Curene® PTMG 1000	
Curative (ratio by weight %)	(8.25/91.75)	(5.7/94.3)	1000 (8.3/91.7)	(3.7/96.3)	
Recommended Plasticizer					
% Plasticizer [†]					
Processing Characteristics					
Stoichiometry	0.95	0.95	0.95	0.95	
	LYMER DATASHEETS FOR CASTING G	UIDELINES. TEMPERATURE ADJUSTME	NTS MAY BE AVAILABLE OR NECESSA	ARY WHEN ADDING PLASTICIZERS.	
Elastomer Properties					
Shore Hardness	60-65A	64-68A	58-62A	60-65A	
Tensile, psi	4800	5600	1220	1900	
100% Modulus, psi	240	370	230	215	
300% Modulus, psi	460	660	370	290	
Elongation, %	640	510	590	720	
Die C Tear (D624), pli	240	255	185	165	
Split Tear (D1938), pli: AVG.	95	90	26	25	
D395 Comp. Set, % (22 hrs @ 70°C)	32	22	24	15	
D2632 Rebound, %	50	64	80	82	
Attributes / Comments	Dry food contact approved; good	Wet & dry food contact approved;	Wet & dry food contact approved;	Wet & dry food contact approved;	
	solvent resistance; very tough;	good solvent resistance; very tough;	good water/acid/base resistance;	easy to process; good	
	curative EW is ~273	low compression set; curative EW	fairly tough with good dynamics;	water/acid/base resistance; fairly	
		~318	high rebound; curative EW ~273	tough with good dynamics; low	
			·	compression set; high rebound;	
				curative EW ~363	
Disadvantages	Moisture sensitive during	Moisture sensitive during	Moisture sensitive during	Moisture sensitive during	
D	processing; poor water/acid/base	processing; poor water/acid/base	processing; poor solvent resistance	processing; poor solvent resistance	
	resistance	resistance	F 6, F	, , , , , , , , , , , , , , , , , , ,	
FDA Approvable Composition	Yes; Dry ^{‡‡}	Yes; Wet [‡] & Dry ^{‡‡}	Yes; Wet [‡] & Dry ^{‡‡}	Yes; Wet [‡] & Dry ^{‡‡}	

EW = Equivilent Weight * Triethanolamine (TEA) ** Dioctyl Adipate (DOA) ***Trimethylolpropane (TMP) † % Plasticizer based on prepolymer weight

^{‡,‡‡} This system is approvable for FDA applications involving [‡]wet food contact per 21 CFR 177.2600 & ^{‡‡}dry food contact per 21 CFR 177.1680