

Products and Properties

 **Baycoll**[®]  **Desmodur**[®]  **Desmophen**[®]
for reactive Adhesives

Commercial and Trial Products

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Baycoll®/Desmodur®/Desmophen®

for reactive Adhesives

Commercial and Trial Products

This brochure provides an overview of the commercial and trial products from our Baycoll®/Desmodur®/Desmophen® range for reactive adhesives with their key technical data and applications.

The information covers aromatic and aliphatic polyisocyanates and prepolymers as well as low free monomer containing prepolymers (Desmodur®). Also covered are informations on polyester, polyether and polycarbonate polyols (Baycoll®, Desmophen®).

Bayer MaterialScience – one of the world's leading producers of polyurethane (PUR) based adesives raw materials – therefore possesses a comprehensive portfolio of high-grade building blocks for reaktive polyurethane adhesive systems.

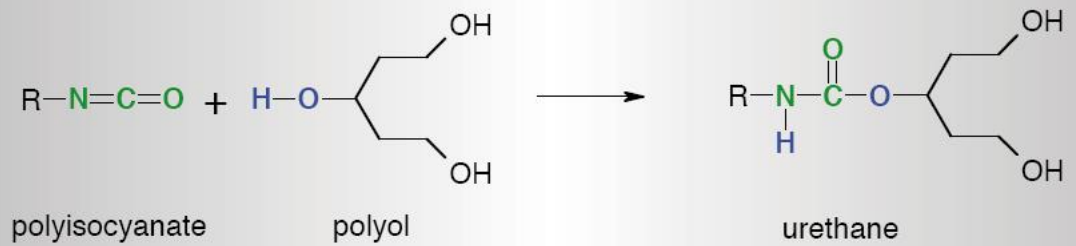
Adhesive raw materials from Bayer MaterialScience meet the many requirements of the adhesives and sealants industry and are used in a wide variety of applications. These include flexible packaging, reactive PUR hot-melts, 1K-moisture curing adhesives, 2K-formulations and sealants.

Basic Principles

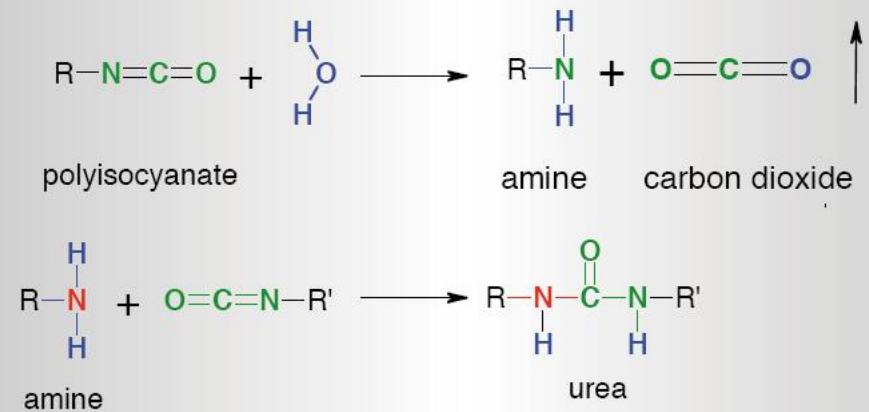
Basic chemical reactions

The mechanical and adhesive properties of reactive polyurethane adhesives are mainly influenced by polyol composition, molecular weight, functionality), polyisocyanate (composition, functionality, NCO-content) and concentration of urethane and urea groups as well as by cross-linking density given by functionality of the components.

The main curing reaction of two component reactive polyurethane adhesives is the addition reaction between the isocyanate groups of the polyisocyanate and the hydroxyl groups of the polyol compound to form substituted polyurethanes. To reach polyurethane adhesives with good properties the overall functionality of the raw materials has to be at least two. Higher functionality leads to crosslinked adhesive.



the case of moisture-curing one-component systems, the polyisocyanates cure through the reaction of free isocyanates with water (e.g. atmospheric humidity). This reaction leads to the unstable carbamic acid which decomposes to primary amino groups and carbon dioxide. The amino groups directly react with isocyanates to form urea, as shown by the formulae below:



Basic calculations

Defintions

The molar mass of the isocyanate group, the OH group and KOH are given by:

$$M_{NCO} = 42 \left[\frac{g}{mol} \right]; \quad M_{OH} = 17 \left[\frac{g}{mol} \right]; \quad M_{KOH} = 56,1 \left[\frac{g}{mol} \right]$$

Polyols are specified by either their %OH (percentage of OH groups in the polyol) or their OH# (amount of KOH needed for titration of the OH groups of the polyol). These two values are given by the following equations

$$\%OH = \frac{100 * M_{OH} * F}{M_{Polyol}}; \quad \%OH = \frac{M_{OH}}{M_{KOH}} * OH\#; \quad OH\# = 33 * OH\%$$

wherein F is the functionality and M_{Polyol} is the molar mass of the polyol.

The molar mass of the polyol is calculated from OH# and functionality by:

$$M_{Polyol} = \frac{F}{OH\#} 56100 \left[\frac{g}{mol} \right]$$

Calculation of NCO/OH ratio:

Mechanical properties and adhesion are influenced by concentration of urethane and urea groups as well as by cross-linking density. This can be controlled by the ratio of NCO to OH groups (Index).

a) Index calculated using the %OH of the polyol:

$$Index = \frac{NCO}{OH} = \frac{pbw \text{ Polyisocyanate} * M_{OH} * \%NCO}{pbw \text{ Polyol} * M_{NCO} * \%OH}$$

b) Index calculated using the OH# of the polyol:

$$Index = \frac{NCO}{OH} = \frac{pbw \text{ Polyisocyanate} * M_{OH} * \%NCO}{pbw \text{ Polyol} * M_{NCO} * (\frac{1}{33} * OH\#)}$$

Calculation of NCO content of a prepolymer

Reactive polyurethane adhesives are at least based on NCO-terminated prepolymers, which are charcterized by their NCO-content. The NCO-content can be calculated by the following equation

$$NCO - Content = \%NCO_{prepolymer} = \frac{m_{polyisocyanate} * \%NCO_{polyisocyanate} - m_{polyol} * OH\#_{polyol} * \frac{M_{NCO}}{33 * M_{OH}}}{m_{polyisocyanate} + m_{polyol}}$$

wherein $m_{polyisocyanate}$ is the amount of polyisocyanate used and m_{polyol} is the amount of polyol used to synthesize the prepolymer.

Monomeric MDI Products

Product	NCO [wt.%]	NCO deviation [wt.%]	Viscosity [mPas]	Viscosity at temperature [°C]	Viscosity deviation [mPas]	approx. Functionality	Molecular weight [g/mol]	HC max / Acidity max [ppm Cl- / HCl]	Applications & Properties
Desmodur 44M liquid	33,6	-	4,1	40	-	2,0	250	50/-	Flexible Packaging, Hotmelts, Sealants
Desmodur 44M fused	33,6	-	4,1	40	-	2,0	250	50/-	Flexible Packaging, Hotmelts, Sealants
Desmodur 44M flakes	33,6	-	4,1	40	-	2,0	250	50/-	Flexible Packaging, Hotmelts, Sealants
Desmodur 44MC fused	33,6	-	4,1	40	-	2,0	250	60/-	Hotmelts, Sealants, prepolymer stability (++)
Desmodur 44MC liquid	33,6	-	4,1	40	-	2,0	250	60/-	Hotmelts, Sealants, prepolymer stability (++)
Desmodur 44MC flakes	33,6	-	4,1	40	-	2,0	250	60/-	Hotmelts, Sealants, prepolymer stability (++)
Desmodur 44MN liquid	33,6	-	4,1	40	-	2,0	250	25/-	Flexible Packaging
Desmodur LS2424	33,6	-	12	25	2	2,0	250	50/-	Flexible Packaging, Hotmelts approx. 55 % 2,4'-MDI / 45 % 4,4'-MDI
Desmodur 2460M	33,6	-	12	25	2	2,0	250	50/-	Flexible Packaging, Hotmelts, approx. 55 % 2,4'-MDI / 45 % 4,4'-MDI colour stabilized
Desmodur CD-S	29,5	0,5	<100	25	-	2,1	-	50/-	Hotmelts, Sealants, modified monomeric MDI, liquid at room temperature storage stable at low temperatures
Desmodur CD-L	29,5	0,5	<100	25	-	2,1	-	50/-	Flexible packaging modified monomeric MDI, liquid at room temperature near to food applications storage stable at low temperatures

Polymeric MDI Products (PMDI-Products)

Product	NCO [wt.%]	NCO deviation [wt.%]	Viscosity [mPas]	Viscosity at temperature [°C]	Viscosity deviation [mPas]	approx. Functionality	Molecular weight [g/mol]	HC max / Acidity max [ppm Cl- / HCl]	Applications & Properties
Desmodur VK5	32,5	1,0	22,5	25	8	2,2	590	-/600	Prepolymers high 2,4'-MDI content good compatibility with polyethers
Desmodur VPLS2363	32,1	0,3	40	25	4	2,4	310	-/600	Prepolymers mixture of 4,4'-MDI and polymeric MDI
Desmodur VK10	31,5	0,5	90	25	20	2,6	350	-/1200	one and two component adhesives high 2,4'-MDI content; low PMDI content good compatibility with polyethers
Desmodur VK10L	31,5	1,0	90	25	20	2,6	350	-/1000	one and two component adhesives high 2,4'-MDI content; low PMDI content good compatibility with polyethers lower reactivity than Desmodur VK 10
Desmodur VKS10	31,5	1,0	120	25	20	2,8	370	-/350	
Desmodur VKS20	31,5	1,0	200	25	40	2,9	390	-/200	standard two component adhesives
Desmodur VKS20F	31,5	1,0	200	25	40	2,9	390	-/200	standard two component adhesives (exact specification on request)
Desmodur XP2404	approx. 31,5	-	approx. 200	25	-	2,9	390	-/200	standard two component adhesives
Desmodur VPKA8766	31,5	1,0	120	25	20	2,8	370	-/200	standardized reactivity reactivity controlled by Fe content
Desmodur VKS70	31,3	0,8	680	25	70	3,2	430	-/500	

Prepolymers based on MDI

Product	NCO [wt.%]	NCO deviation [wt.%]	Viscosity [mPas]	Viscosity at temperature [°C]	Viscosity deviation [mPas]	approx. Functionality	Molecular weight [g/mol]	HC max / Acidity max [ppm Cl- / HCl]	Applications & Properties
Desmodur VH20	24,5	0,5	230	25	90	2,0	350	-	storage stable at low temperatures
Desmodur VKP79	24,3	0,5	700	25	200	2,2	380	-/300	based on polymeric MDI
Desmodur E29	24,0	1,0	220	25	80	2,2	380	-	
Desmodur PF	23,0	0,5	600	25	100	2,0	370	50/-	"Hotmelts modified monomeric MDI, liquid at room temperature storage stable at low temperatures"
Desmodur E21	16,0	0,7	5400	25	1300	2,8	720	-	Wood bonding
Desmodur XP2521	approx. 16	-	approx. 1200	25	-	2,0	530	-	
Desmodur VPPU38IF04	15,5	0,2	1500	20	250	2,26	620	-	
Desmodur E23	15,40	0,4	1800	23	250	2,1	560	-	Wood bonding, Flexible Packaging
Desmodur VKP58	13,2	1,0	6500	25	1500	2,8	890	-	contains Sn-catalyst
Desmodur XP2505	13,2	0,7	6500	25	1200	2,75	870	-/550	
Desmodur PM76	9,85	0,3	2750	23	750	2,0	850	-	Flexible Packaging
Desmodur E22	8,60	0,3	2800	23	400	2,0	950	-	Bonding of rubber pellets

Aliphatic Isocyanates

Product	NCO [wt.%]	NCO deviation [wt.%]	Free monomer content [wt.%]	Viscosity [mPas]	Viscosity at temperature [°C]	Viscosity deviation [mPas]	colour Index [Hazen]	approx. Functionality	Molecular weight [g/mol]	Applications & Properties
Desmodur H	> 49,7	-	-	3	25	-	30	2,0	170	
Desmodur I	> 37,5	-	-	10	25	-	30	2,0	220	
Desmodur W	> 31,8	-	-	30	25	-	30	2,0	260	
Desmodur N100	22,0	0,3	-	10000	23	2000	80	3,5	380	Biuret
Desmodur N3200	23,0	0,5	0,5	2500	23	1000	40	3,2	370	Biuret
Desmodur N3300	21,8	0,3	0,15	3000	23	750	40	3,4	680	Isocyanurate
Desmodur N3400	21,8	0,7	0,5	150	23	80	80	2,4	480	Uretdione
Desmodur N 3600	23,0	0,5	0,25	1200	23	300	40	3,1	570	Isocyanurate
Desmodur N 3800	11,0	0,5	0,3	6000	23	1200	80	3,8	1450	modified Isocyanurate
Desmodur XP 2410	23,7	0,5	0,3	700	23	100	40	3,1	540	Isocyanurate

Monomeric TDI Products

Product	NCO [wt.%]	2,4-TDI content [wt%]	2,4-TDI content deviation[%]	Viscosity [mPas]	Viscosity at temperature [°C]	approx. Functionality	Molecular weight [g/mol]	HC max / Acidity max [ppm Cl- / HCl]	Applications & Properties
Desmodur T65	48	67,0	1,0	3	25	2,0	176	100/40	
Desmodur T80	48	80,5	1,0	3	25	2,0	176	100/40	Stabilizer: Irganox 1076 FD
Desmodur T100	48	> 99,0	-	3	25	2,0	176	100/40	Stabilizer: Irganox 1076 FD

Low free monomer prepolymers

Product	NCO [wt.%]	NCO deviation [wt.%]	Monomer content [wt.%]	Viscosity [mPas]	Viscosity at temperature [°C]	Viscosity deviation [mPas]	approx. Functionality	Molecular weight [g/mol]	Applications & Properties
MDI Prepolymers									
Desmodur VPLS2397	approx. 5,7	-	< 0,5	approx. 10000	50	-	2,0	1450	Flexible Packaging Hotmelts Polyether based prepolymer
TDI Prepolymers									
Desmodur E 14	3,3	0,2	< 0,5	6800	23	1200	2,5	3100	Polyether based prepolymer
Desmodur E 15	4,4	0,2	< 0,5	7000	23	1000	2,0	1900	Polyether based prepolymer
Desmodur VPLS 2287	approx. 3,3	-	< 0,5	approx. 6000	23	-	2,0	2540	Polyether based prepolymer
Desmodur VPKA8697	approx. 8,4	-	< 0,1	approx. 5000	50	-	2,0	970	Polyether based prepolymer
Desmodur MYD 10038 A*	3,5	0,25	< 0,5	approx. 5000	60	-	2,0	2400	Polyester based prepolymer
Desmodur MYD 10038 B*	4,95	0,25	< 0,5	approx. 2800	60	-	2,0	1700	Polyester based prepolymer
HDI Prepolymers									
Desmodur E 305	12,8	0,5	< 0,5	4000	23	700	2,0	680	Polyether based prepolymer
Desmodur XP 2617	12,5	1,0	< 0,5	4250	23	1250	2,0	680	
Desmodur XP 2599	6,0	0,5	< 0,5	2500	23	500	4,0	2800	
IPDI Prepolymers									
Desmodur VPLS 2371	approx. 3,7	-	<2	approx. 11000	23	-	2,0	2200	Polyether based prepolymer

Polyethers (Diol / Special)

Product	OH# [mg KOH/g]	OH# deviation [mg KOH/g]	max. Acidity [mg KOH/g]	Viscosity at 25°C [mPas]	Viscosity deviation [mPas]	max. Water content [%]	Molecular weight [g/mol]	Starter	Antioxidant	EO tipped %	Addition H3PO4	Applications & Properties
Diol												
Desmophen 1262BD	260	10	0,1	70	25	0,05	430	PG-1,2	Irganox 1076 FD		no	Flexible Packaging, low molecular weight product
Desmophen XP2449	190	15	-	122	10	0,08	590	PG-1,2	Irganox 1076 FD	87	no	Flexible Packaging
Desmophen 1110BD	112	4,0	0,1	140	15	0,05	1000	PG-1,2	Irganox 1076 FD		no	Flexible Packaging
Desmophen 1111BD	112	4,0	0,02	155	20	0,05	1000	PG-1,2	Irganox 1076 FD		yes	Flexible Packaging odorless, compatibility (++)
Desmophen 2061BD	56,1	1,4	0,02	345	20	0,05	2000	PG-1,2	Irganox 1076 FD		yes	Sealants Flexible Packaging odorless, compatibility (++)
Desmophen 2060BD	56	2,0	0,1	310	25	0,05	2000	PG-1,2	Irganox 1076 FD		no	Saelants Flexible Packaging compatibility (++)
Desmophen 4028BD	28,5	2,0	-	870	80	0,08	3950	PG-1,2	Irganox 1076 FD	20	no	Sealants Flexible Packaging compatibility with PMDI (++)
Desmophen 4027BD	28	2,0	0,1	870	70	0,05	4000	PG-1,2	Irganox 1076 FD	13	no	Sealants Flexible Packaging compatibility with PMDI (++)
Acclaim Polyol 4200	28	1,5	0,02	approx. 980	-	0,03	4000	PG-1,2	Irganox 1076 FD		yes	Sealants Flexible Packaging compatibility (++)

Polyethers (Diol / Special)

Product	OH# [mg KOH/g]	OH# deviation [mg KOH/g]	max. Acidity [mg KOH/g]	Viscosity at 25°C [mPas]	Viscosity deviation [mPas]	max. Water content [%]	Molecular weight [g/mol]	Starter	Antioxidant	EO tipped %	Addition H3PO4	Applications & Properties
Acclaim Polyol 8200 N *	14	1,5	0,015	2850	850	0,05	8000	PG-1,2	Irganox 1076 FD		yes	Sealants
Acclaim Polyol 12200N *	10	1,5	0,015	6000	2000	0,05	11220	PG-1,2	Irganox 1076 FD		yes	Sealants
Acclaim Polyol 18200N *	7	1,0	0,03	23000	4000	0,05	17300	PG-1,2	Irganox 1076 FD		yes	Sealants
Special Polyols												
Baycoll VP KA 8576	282	8,0	80	1250	300	0,30	--					special application: structural bonding polyol mixture
Desmophen 5027GT	29	2,0	-	2050	300	0,08	5800	Glycerine	Irganox 1135	yes		Sealants, contains 20% SAN
Desmophen 5028GT*	28,5	2,0	-	3600	400	0,55	5900	Glycerine	Irganox 1135	yes		contains 20% PHD

SAN = Styrene acrylnitrile copolymer; PHD = dispersed polyurea; PG-1,2 = 1,2-Propylene glycole

* Availability limited

Polyethers (Triol / Tetrol)

Product	OH# [mg KOH/g]	OH# deviation [mg KOH/g]	max. Acidity [mg KOH/g]	Viscosity at 25°C [mPas]	Viscosity deviation [mPas]	max. Water content [%]	Molecular weight [g/mol]	Starter	Antioxidant	EO tipped %	Addition H3PO4	Applications & Properties
Triol												
Desmophen 1550BT	550	25	-	1800	260	0,15	300	TMP	Irganox 1076 FD		no	
Desmophen 1400BT	400	20	0,1	370	40	0,05	420	Glycerine	Irganox 1076 FD		no	Flexible Packaging, compatibility (++) long pot life short reaction time
Desmophen 1380BT	385	15	0,5	600	50	0,05	440	TMP	Irganox 1076 FD		yes	
Desmophen 1240BT	232	16	0,1	350	30	0,05	725	TMP	Irganox 1076 FD		no	Flexible Packaging
Desmophen 3061BT	56	2	0,1	500	40	0,05	3000	Glycerine	Irganox 1076	yes	no	Sealants Flexible Packaging
Desmophen 3060BS	55,5	2	0,1	580	55	0,05	2830	starter mixture	Irganox 1075		no	Functionality: 2,80
Desmophen 4040BS	42	2	0,1	630	50	0,05	3740	starter mixture	Irganox 1076 FD		no	Sealants Flexible Packaging Functionality: 2,80
Desmophen 5034BT	35	2	0,1	860	70	0,05	4800	Glycerine	Irganox 1076 FD	yes	no	Sealants Flexible Packaging standard polyether for 1 and 2 component systems
Desmophen 5035BT	35	2	0,1	860	70	0,05	4800	Glycerine	Irganox 1076 FD	yes	no	Flexible Packaging, 2 component systems
Acclaim Polyol 6300 *	28	1,5	0,02	approx. 1500		0,03	6000	Glycerine	Vitamine E		yes	Sealants

Polyethers (Triol / Tetrol)

Product	OH# [mg KOH/g]	OH# deviation [mg KOH/g]	max. Acidity [mg KOH/g]	Viscosity at 25°C [mPas]	Viscosity deviation [mPas]	max. Water content [%]	Molecular weight [g/mol]	Starter	Antioxidant	EO tipped %	Addition H3PO4	Applications & Properties
Acclaim Polyol 6320N *	28	1,5	0,015	approx. 1700		0,05	6000	Glycerine	Vitamine E	yes	no	Sealants
Desmophen 5031BT	28	2	0,1	1160	100	0,05	6000	Glycerine	Irganox 1076 FD	yes	no	Sealants
Tetrol												
Desmophen 1630EV	620	25		19200	2200	0,15	360	Ethylen-diamine	Irganox 1076 FD		no	fast curing 1 and 2 component systems
Desmophen 1470EV	470	20		5400	450	0,13	480	Ethylen-diamine	Irganox 1076 FD		no	fast curing 1 and 2 component systems
Desmophen 4059EV *	60	3	0,7	670	55	0,05	3740	Ethylen-diamine	Irganox 1076 FD		no	internal catalysis

TMP = Trimethylol propane

* Availability limited

Polyesters, amorph, crystalline

Product	OH# [mg KOH/g]	OH# deviation [mg KOH/g]	max. Acid value [mg KOH/g]	Viscosity [mPas]	Viscosity deviation [mPas]	Viscosity at temperature [°C]	max. Water content [%]	Molecular weight [g/mol]	Tg [°C]	Tm [°C]	colour Index [Hazen]	Main components	Applications & Properties
Amorphous Polyesters													
Desmophen XP2607	42	4	2,0					2670	approx. 50		200	iP, tP, N, E	Hotmelt
Desmophen XP2462	35	4	2,0	12500		130	0,05	3200	approx. 30		500	A, tP, N, E, iP	Hotmelt
Crystalline Polyesters													
Baycoll XP2401	47	4	1,0	790	100	75	0,03	2400		approx. 55	70	A, H	
Desmophen XP2527	30	2	2,0	1800	300	100	0,05	4000		approx. 70	200	DO, H	Hotmelt fast crystallizing
Baycoll AD5027	28	4	1,2	2800	1000	75	0,05	4000		approx. 55	200	A, H	Flexible Packaging adhesion (+), PVC (+++) hydrolysis resistance (++) slip agent compatibility (--) Hotmelt
Baycoll VPKA8776	28	5	1,0	2800	1000	75	0,05	4000		approx. 50	200	A, B	Hotmelt, slow crystallizing; PVC
Baycoll VPLS2395	28	3	1,5	3050	900	75	0,05	4000			400	A, H, N	Hotmelt, low crystallization tendency; PVC

A = adipic acid B = butanediol-1.4 D = diethylene glycol DO = dodecanedioic acid E = ethylene glycol H = hexanediol-1.6
 iP = isophthalic acid N = neopentylglycol oP = orthophthalic acid P = 1.2-propanediol T = trimethylolpropane tP = terephthalic acid

Polyesters - liquid, difunctional

Product	OH# [mg KOH/g]	OH# deviation [mg KOH/g]	max. Acid value [mg KOH/g]	Viscosity [mPas]	Viscosity deviation [mPas]	Viscosity at temperature [°C]	max. Water content [%]	Molecular weight [g/mol]	Tg [°C]	colour Index [Hazen]	Main components	Applications & Properties
Liquid Polyesters difunctional												
Baycoll AD1280	288	17	1,5	410	50	75	0,05	390	-31	200	oP, E	Flexible Packaging Adhesion (+), aluminum viscosity at RT (+)
Baycoll AD1225	225	10	1,3	100	15	75	0,05	500	-60	150	A, N, E	Flexible Packaging hydrolysis resistance (++) slip agent compatibility (+++) viscosity at RT (+) odour (-)
Baycoll AD1110	112	7	1,3	140	20	75	0,05	1000	-58,0	200	A, D	Flexible Packaging, standard
Baycoll AD1115	112	7	1,0	19500	2800	23	0,05	1000	-43	200	A, iP, D	Flexible Packaging Adhesion (+), aluminum
Baycoll AD1122	112	8	1,3	280	35	75	0,05	1000	-53	150	A, N, E	Flexible Packaging hydrolysis resistance (++) slip agent compatibility (+++) viscosity at RT (+) odour (-)
Baycoll CD2084	84	7	1,3	120	15	75	0,05	1340	-57	250	iP, oP, D	Flexible Packaging adhesion (+) hydrolysis resistance (+) slip agent compatibility (+) viscosity (+) compatibility (+)
Baycoll AD2055	56	5	1,0	630	65	75	0,05	2000	-64	200	A, H, N	Flexible Packaging, adhesion (+) hydrolysis resistance (++) slip agent compatibility (+++)

Polyesters - liquid, difunctional

Product	OH# [mg KOH/g]	OH# deviation [mg KOH/g]	max. Acid value [mg KOH/g]	Viscosity [mPas]	Viscosity deviation [mPas]	Viscosity at temperature [°C]	max. Water content [%]	Molecular weight [g/mol]	Tg [°C]	colour Index [Hazen]	Main components	Applications & Properties
Baycoll AD2047	55	5	1,0	7000	2000	75	0,05	2000	-23	250	A, iP, N, E	Flexible Packaging adhesion (+++) hydrolysis resistance (++) slip agent compatibility (+++) viscosity (-)
Baycoll AD3040	43	3	1,1	850	100	75	0,05	2600	-52	150	A, D	Flexible Packaging Hotmelt compatibility (-)

A = adipic acid B = butanediol-1.4 D = diethylene glycol DO = dodecanedioic acid E = ethylene glycol H = hexanediol-1.6
 iP = isophthalic acid N = neopentylglycol oP = orthophthalic acid P = 1.2-propanediol T = trimethylolpropane tP = terephthalic acid

Polyesters - liquid, higher functional

Product	OH# [mg KOH/g]	OH# deviation [mg KOH/g]	max. Acid value [mg KOH/g]	Viscosity [mPas]	Viscosity deviation [mPas]	Viscosity at temperature [°C]	max. Water content [%]	Molecular weight [g/mol]	Tg [°C]	colour Index [Hazen]	approx. Functionality	Main components	Applications & Properties
Liquid Polyesters higher functional													
Baycoll DV1245	234	17	2,0	2950	250	75	0,2					hydrophobic; fatty acid based	2 component adhesive
Baycoll AV1210	215	10	3,0	680	100	75	0,05	940	-45	200	3,6	A, oP, T, P	Flexible Packaging adhesion (+), slip agent compatibility (+)
Baycoll AS1160	165	10	4,0	450	60	75	0,05	1000	-47	150	2,9	A, oP, T, P	Flexible Packaging adhesion (+)
Baycoll DS1165	155	7	2,0	3500	500	25	0,1					hydrophobic; fatty acid based	2 component adhesive
Baycoll AS1155	141	13	2,5	3100	400	75	0,1	1260	-32	150	3,2	A, iP, oP, T, H	Flexible Packaging adhesion (+++), aluminum, polymers hydrolysis resistance (++) slip agent compatibility (+) reactivity (+)
Baycoll AV2113	109	7	1,0	650	100	75	0,05	1650	-59		3,2	A, H, P, T	PVC adhesion hydrolysis resistance (++) slip agent compatibility (+)
Baycoll AS2060	60	3	2,0	1000	100	75	0,05	2530	-53	150	2,7	A, D, T	Flexible Packaging compatibility (-)


A = adipic acid B = butanediol-1.4 D = diethylene glycol DO = dodecanedioic acid E = ethylene glycol H = hexanediol-1.6
 iP = isophthalic acid N = neopentylglycol oP = orthophthalic acid P = 1.2-propanediol T = trimethylolpropane tP = terephthalic acid

Polycarbonate Polyols

Product	OH# [mg KOH/g]	OH# deviation [mg KOH/g]	max. Acid value [mg KOH/g]	Viscosity [mPas]	Viscosity deviation [mPas]	Viscosity at temperature [°C]	max. Water content [%]	Molecular weight [g/mol]	Tg [°C]	Tm [°C]	colour Index [Hazen]	Main components	Applications & Properties
Desmophen XP 2501	115	15	0,1	3500	1000	23	0,05	1000	-69		<100	H,EC	hydrolysis resistance (+++) light stability (+++)
Desmophen C 1200	56	7	0,1	15000	3000	23	0,05	2000	-68		<200	H,EC	hydrolysis resistance (+++) light stability (+++)
Desmophen XP 2586	112	10	0,15	450	150	75	0,1	1000	-61	44	<200	H	hydrolysis resistance (+++) light stability (+++)
Desmophen C 2200	56	5	0,2	2050	750	75	0,1	2000	-55	50	<200	H	hydrolysis resistance (+++) light stability (+++)

H = hexanediol-1.6

EC = e-caprolactone



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