



Polyols & Aspartics  
for Reaction with  
Polyisocyanates.

Nonreactive Resins.

Desmophen® Baycoll® Acclaim®  
Desmolac® Desmocoll® Cardyon®  
Desmomelt® Pergut®







Desmophen® Baycoll® Acclaim® Desmolac® Desmocoll® Cardyon® Desmomelt® Pergut®



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## Building a circular future, together

The demand for more circular solutions is rising at a faster pace than ever before as the world collectively strives to tackle today's global challenges. Climate change, population growth, urbanization, digitalization and mobility are pushing players from every sector to find more sustainable solutions and lay the foundations for climate neutrality by driving a Circular Economy. The challenge is not only to create these circular solutions but also to maintain quality, durability and productivity.

Innovation is key to satisfying these demands and creating added value for customers, society and the environment by turning targets into realities. At Covestro, our long-standing expertise in aliphatic and aromatic polyisocyanates and more sustainable resins goes hand-in-hand with our purpose of constantly pushing boundaries in the search for future-oriented solutions.

Through joint solutions, alternative raw materials, innovative recycling, and harnessing renewable energy, we're enabling coatings and adhesives producers to meet the circular challenge, here and now.

We're expanding our portfolio to include bio-based or recycled raw materials in coatings, adhesives, and specialty areas ranging from cosmetics to textiles to 3D printing. Thanks to our mass balancing approach, we're helping close the loop by gradually replacing fossil fuels with ISCC-certified renewable resources. Our drop-in solutions ensure the high quality, consistent performance and easy processing that keep your production running smoothly. And we're constantly working to provide the global support, facilities and supply chain security you need to forge yet more circular innovations in infrastructure, automotive, furniture and more.

Material solutions can help turn circular targets into realities. Let's make the world a brighter place, together.



## Efficiency meets sustainability

### Solutions to enhance your process efficiency

Nowadays, the quality standards made on industrial processes are very high. This is equally true of the cost-cutting requirements. However, both goals can be achieved by increasing process efficiency. At Covestro, we have a wide range of solutions designed to enhance your process efficiency. Why not take advantage of our know-how? These solutions will benefit your bottom line.

### Sustainability

Sustainability is at the heart of the Covestro strategy. We inspire innovation and drive growth through profitable products and technologies that benefit society and reduce the impact on the environment.

Our coatings, adhesives and specialty products and solutions contribute to sustainability through:

- **Saving energy – fast and smart**

Polyurethane systems represent a benchmark in productivity and process efficiency in many industries. We strive to further push the limits of efficiency by developing game-changing new solutions.



- **Reducing waste**

We offer solutions such as innovative 1K technologies that enable our value chain partners to use materials more efficiently and reduce waste.

- **Cutting emissions**

**Bayhydur®** and **Desmodur®** grades are key enablers for low-emission solutions in the coatings and adhesives industries – waterborne and high solids/100% solids!

- **Responsible management of natural resources**

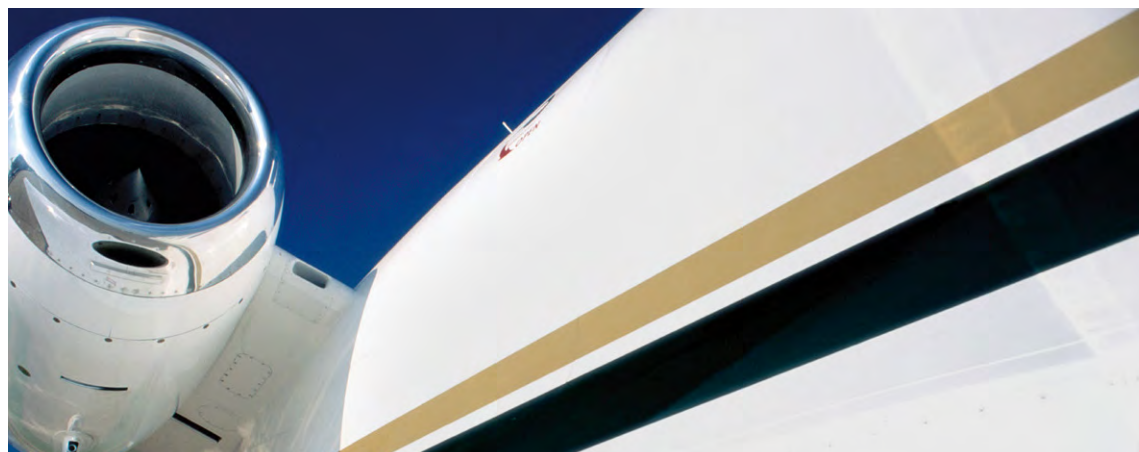
Highly durable PU-based coatings and adhesives significantly extend the lifetime of a coated product and thus help to prolong resource use.

- **Closing the loop (circularity)**

Through economically viable products made from partly bio-based raw materials – with no deterioration in performance – we help our customers and value chain partners to reduce their carbon footprint and offer solutions that incorporate renewable building blocks.

- **Food contact**

Any information about food or drinking water contact for products exclusively refers to the regulation quoted in the table: please request a Declaration of Compliance before use. For any uses which require compliance with another jurisdiction or national legislation, the appropriate legal assessment needs to be performed prior to any application of a product in the field.



# The reaction partners

## Pioneering polyurethane chemistry

Ever since Otto Bayer's discovery of the polyisocyanate-polyaddition process in 1937, Bayer – now Covestro – has pioneered polyurethane chemistry. Seventy years ago, Bayer – now Covestro – developed the first applications using polyisocyanates for the coatings and adhesives sectors. We work closely with our customers to systematically advance the state of the art in polyurethane technology. Using market-oriented research and development, we specifically adapt our product portfolio to our customers' increasingly stringent requirements. Together with you, we want to continue our successful journey along this path.

## Acclaim® and Baycoll®

Acclaim® polyethers and Baycoll® polyesters are powerful combination partners for Desmodur®. The Acclaim® and Baycoll® portfolio has been specifically developed to meet system requirements in the field of adhesive and sealant applications. The unique impact technology enables polyether polyols to be produced in a process that is far more energy-efficient than conventional processes. This conservation of resources is a very important step in the further development of sustainable production. In addition, extremely long-chain polyethers can be obtained that

are not possible with conventional processes. These polyurethane building blocks can be used to formulate sealants with outstanding mechanical properties, for example.

## Desmophen®

Desmophen®, the other powerful combination partner for Desmodur®, has stood for reliable, high-quality polyurethane raw materials for decades. An impressive variety of product combinations allows almost unlimited design scope in the development of coating systems, casting systems and, of course, surface coatings. Our aim is to systematically expand these combination possibilities. In our product development activities, we take full account of changing market demands for greater efficiency and improved quality. This is demonstrated by the development of the Desmophen® NH polyaspartics. When combined with Desmodur® polyisocyanates, the outcome is high-quality polyurea systems that are also extremely efficient in the final application. The Desmophen® C polycarbonate diol product portfolio has been expanded in response to the widespread demand for high-quality polyurethane raw materials. Desmophen® C is regarded in such applications as a formulation component and synthesis building block for the production of durable, weather-stable polyurethane systems.

## How to find the product you need

The design of the brochure and the arrangement of the products into the respective categories take into account the trend towards high solids and 100% solids polyurethane systems. The products are arranged under these headings according to their OH content or OH number, irrespective of the name. The technical product data are intended to provide clear orientation. Additional information can, of course, be obtained from the respective technical information sheets or provided on request.







# Desmophen® Baycoll®

Polyester polyols based on a variety of building blocks can be used to formulate polyurethane compounds and systems with a wide range of properties. The listed products represent a selection only:

- **Desmophen®** – polyester optimized for coating applications
- **Baycoll®** – polyester designed for adhesive applications

Many additional polyesters are furthermore available, e.g., to be used as building blocks. They can be offered on request.



## Polyester without aromatic building blocks, linear

	CHARACTERISTICS	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	T <sub>g</sub> APPROX. [°C]	COMMENTS
<b>Baycoll® AD 2055</b>	Amorphous	1.7	630 at 75°C	-65	Building block for flexible packaging adhesives with good hydrolysis resistance and excellent slip agent compatibility.
<b>Baycoll® AD 5027</b>	Crystalline	0.9	2,800 at 75°C	+64	Building block for reactive PU hotmelt adhesives with good adhesion to PVC and good hydrolysis resistance.
<b>Desmophen® 1652</b>	Amorphous	1.6	11,000	-58	Polyol with low saponification stability, incl. soft-touch for plastics coatings and also for flexible sealants.
<b>Desmophen® 1700</b>	Amorphous	1.3	17,500	-51	Flexibilizing resin to improve toughness, durability and abrasion resistance of furniture, floor and parquet coatings.
<b>Desmophen® VPLS 2328</b>	Amorphous	8.0	800	-75	In combination with hard <b>Desmophen®</b> products as a flexibilizing component in 2K PU systems, transparent cast systems. Also for highly elastic PU coatings.



# Desmophen® Baycoll®

**Polyester with aromatic and aliphatic building blocks, linear**

	CHARACTERISTICS	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	T <sub>g</sub> APPROX. [°C]	COMMENTS
<b>Baycoll® AD 2047</b>	Amorphous	1.7	7,000 at 75°C	-21	Building block for flexible packaging adhesives with good hydrolysis resistance and excellent slip agent compatibility.
<b>Baycoll® CD 2084</b>	Amorphous	2.5	120 at 75°C	-56	Building block for flexible packaging adhesives.
<b>Desmophen® 850</b>	Amorphous	8.5	625 at 75°C	-15	In combination with other <b>Desmophen®</b> products for 2K PU coatings.





# Desmophen® Baycoll®

Branched polyester grades for an optimized polyurethane network.

Polyester without aromatic building blocks, branched, liquid	GRADE	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	T <sub>g</sub> APPROX. [°C]	COMMENTS
<b>Desmophen® 1800</b>	Slightly branched polyester polyol	1.8	21,500	-52	For highly elastic coatings for rubber and plastic articles, also for elastic high-build, textile and hose coatings, for combination with <b>Desmodur® L</b> .
<b>Desmophen® 2015 W</b>	Slightly branched polyester polyol	1.8	1,000 at 75°C	-52	Modification of <b>Desmophen® 1800</b> . For flexible coatings in combination with <b>Desmodur® L</b> or <b>N</b> .
<b>Desmophen® VPLS 2249/1</b>	Branched, short-chain polyester polyol	15.5	1,900	-47	Polyol for hardening component in weather-stable polyurethane systems and transparent cast systems for aliphatic, 100% solid coatings.
<b>Desmophen® XP 2488</b>	Branched polyester polyol	16.0	12,250	-57	For 100% solid coatings, e.g., in-mould coatings and very high solids 2K PU coatings.





# Desmophen® Baycoll®

**Polyester with aromatic  
and aliphatic building  
blocks, branched, liquid**

	GRADE	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	T <sub>g</sub> APPROX. [°C]	COMMENTS
<b>Baycoll® AV 2113</b>	Highly branched polyester polyol	3.3	650 at 75°C	-59	Building block for PU adhesives with excellent PVC adhesion and good hydrolysis resistance.
<b>Desmophen® 670</b>	Slightly branched polyester polyol	4.3	2,200 (80% in BA)	-29	For the flexibilization of hard <b>Desmophen®</b> products. For flexible, corrosion protection, weather-stable and colorfast coatings, especially for plastics.
<b>Desmophen® 800</b>	Highly branched polyester polyol	8.6	850 (70% in MPA)	-32	Polyol for yielding hard, chemically resistant films, high impact resistance, toughness and abrasion resistance for air-drying 2K coatings.
<b>Desmophen® 1100</b>	Branched polyester polyol	6.5	30,500	-42	Mixed with highly branched <b>Desmophen®</b> products and in combination with <b>Desmodur® L, HL, IL</b> or <b>N</b> in 2K PU coatings for wood and various plastics.
<b>Desmophen® 1200</b>	Slightly branched polyester polyol	5.0	23,500	-42	Mixed with highly branched <b>Desmophen®</b> products and in combination with <b>Desmodur® L, HL, IL</b> or <b>N</b> in 2K PU coatings for wood and various plastics.





# Desmophen®

Branched, solvent-borne polyester grades for numerous high-performance coating applications; supplied in suitable solvent grades for various application techniques.

## Polyester with aromatic and aliphatic building blocks – solvent-borne, branched

	GRADE	SUPPLY FORM SOLID CONTENT APPROX. [%]	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	T <sub>g</sub> APPROX. [°C]	COMMENTS
<b>Desmophen® 631 MPA</b>	Branched polyester polyol	75 in MPA	6.4	19,500	-23	For QUV stability (UV-B) and chemical resistance, for flexible 2K PU coatings especially for plastics, for flexibilizing of hard Desmophen® products.
<b>Desmophen® 650 MPA</b>	Branched polyester polyol	65 in MPA	5.3	20,000	+48	For weather-stable, corrosion protection, colorfast and chemically resistant coatings, primarily for transportation and aircraft applications and high-grade industrial finishing.
<b>Desmophen® 651 MPA</b>	Branched polyester polyol	65 in MPA	5.5	14,500	+48	Properties largely comparable with <b>Desmophen® 650</b> , better compatibility with other binders in aromatic solvents, for barrier coating on tropical woods.
<b>Desmophen® 651 MPA/X</b>	Branched polyester polyol	67 in MPA/X	5.5	25,000	+48	Properties largely comparable with <b>Desmophen® 650</b> , better compatibility with other binders in aromatic solvents, for barrier coating on tropical woods.
<b>Desmophen® 670 BA</b>	Slightly branched polyester polyol	80 in BA	3.5	3,000	-21	For very good weather stability and excellent for low temperature curing, especially for plastics or for flexibilizing of hard <b>Desmophen®</b> products.
<b>Desmophen® 680 BA</b>	Branched polyester polyol	70 in BA	2.2	3,000	+20	For fast-drying, weather-stable coatings, especially for industrial and transportation applications.
<b>Desmophen® 680 X</b>	Branched polyester polyol	60 in X	1.8	2,750	+20	For fast-drying, weather-stable coatings, especially for industrial and transportation applications.
<b>Desmophen® 690 MPA</b>	Branched polyester polyol	70 in MPA	1.4	10,000	+42	Weather-stable and colorfast specialty resin, e.g., to improve adhesion on PVC.
<b>Desmophen® 800 BA</b>	Highly branched polyester polyol	80 in BA	6.9	3,500	-24	Supply form <b>Desmophen® 800</b> .
<b>Desmophen® 800 MPA</b>	Highly branched polyester polyol	85 in MPA	7.5	11,000	-24	Supply form <b>Desmophen® 800</b> .
<b>Desmophen® T 1665 SN/IB</b>	Slightly branched polyester polyol	65 in SN/IB	1.7	2,700	+16	Oil-free, hydroxyl-bearing, saturated polyester with good weather stability for baking primers, automotive primer surfacers, can/coil coatings and industrial coatings, intended for the combination with flexible hardeners.





## Desmophen®

Highly branched, solvent-borne polyester grades for numerous high-performance coating applications; supplied in suitable solvent grades for various application techniques.



### Polyester with aliphatic building blocks – solvent-borne, branched

	GRADE	SUPPLY FORM SOLID CONTENT APPROX. [%]	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	T <sub>g</sub> APPROX. [°C]	COMMENTS
<b>Desmophen® 775 XP</b>	Branched polyester polyol	75 in BA	9.5	5,000	-17	High solid version of <b>Desmophen® 650</b> with improved chemical resistance and better yellowing resistance upon weathering.
<b>Desmophen® T 1777 SN</b>	Slightly branched polyester polyol	77 in SN	2.0	5,500	-14	Oil-free, hydroxyl-bearing, polyester for thermally activated polyurethane hardener for can/coil coatings and industrial coatings.
<b>Desmophen® VPLS 2089</b>	Branched polyester polyol	75 in BA	6.0	10,000	+15	In combination with <b>Desmodur® N 75, ultra N 3390</b> and <b>ultra N 3600</b> very good weathering properties and gloss retention, due to the high crosslinking ratio good solvent and chemical resistance.
<b>Desmophen® VP LS 2388</b>	Slightly branched polyester polyol	80 in BA	3.8	3,000	-21	Polyester with QUV stability (UV-B) and chemical resistance, for flexible 2K PU coatings especially for plastics, for flexibilizing of hard <b>Desmophen®</b> products.



# Desmophen®

Fatty acid-modified polyester grades for improved compatibility.



## Polyester with aromatic and aliphatic building blocks – solvent-borne, branched, fatty acid-modified

	GRADE	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	T <sub>g</sub> APPROX. [°C]	COMMENTS
<b>Desmophen® PL 300 X</b>	60 in X	2.7	5,350	-4	Reactive polyester for air-drying 2K PU coating, especially for wood in combination with <b>Desmodur® L</b> and <b>IL</b> grades.
<b>Desmophen® PL 800</b>	70 in X	2.5	1,500	-16	Low-molecular-weight polyester, good pigment wetting, gloss.
<b>Desmophen® PL 817</b>	75 in X/MEK	3.3	10,000	-4	Non-drying, in combination with other resins, good hardness and for matte finish top coat.
<b>Desmophen® 881 X</b>	75 in X	3.6	12,500	+3	Combination resin to achieve high-gloss formulations, very good pigment wetting, use in pigment pastes. Co-reactant for polyisocyanates in the formulation of air-drying two-pack coatings.
<b>Desmophen® 1300 EA</b>	70 in EA	3.0	300	-13	For fast-drying 2K coatings for wood, chipboard and fiberboard, for clear and pigmented primers, primer surfacers and topcoats.
<b>Desmophen® 1300 BA</b>	75 in BA	3.2	1,000	-13	
<b>Desmophen® 1300 X</b>	75 in X	3.2	3,450	-13	
<b>Desmophen® 1388 EA</b>	71 in EA	4.7	950	+2	Improved hardness, for 2K PU coatings for wood in combination with <b>Desmodur® IL, L</b> or <b>N</b> grades.

## Desmophen® Acclaim®

Linear building blocks for NCO and silane-terminated prepolymers suitable for adhesives and sealants with advantages in hydrolysis resistance and flexibility. These high-performance, low-monomer polyether polyols are prepared using Covestro's proprietary IMPACT™ technology, using a patented organo-metallic propoxylation catalyst.



Polyether – diol*	OH NUMBER APPROX. [mg KOH/g]	MOLECULAR WEIGHT APPROX. [g/mol]	VISCOSITY AT 25°C APPROX. [mPa · s]	COMMENTS
<b>Desmophen® 1262 BD</b>	260	430	70	Low-reactive polyether, low-molecular-weight product.
<b>Desmophen® 1110 BD</b>	112	1,000	140	Low-reactive polyether.
<b>Desmophen® 1111 BD</b>	112	1,000	155	Low-monomer polyether, low reactive, odorless, good compatibility with pMDI.
<b>Desmophen® 2060 BD</b>	56	2,000	310	Low-reactive polyether, good compatibility with pMDI.
<b>Desmophen® 2061 BD</b>	56	2,000	345	Low-monomer polyether, low reactive, odorless, good compatibility with pMDI.
<b>Desmophen® 4028 BD</b>	28	4,000	870	High-reactive polyether, good compatibility with pMDI.
<b>Desmophen® 5168 T</b>	28	4,000	870	Reactive polyether, good compatibility with pMDI.
<b>Acclaim® Polyol 4200</b>	28	4,000	970	Low-monomer polyether, low reactive, odorless, good compatibility with pMDI.
<b>Acclaim® Polyol 8200 N</b>	14	8,000	3,000	Low-monomer polyether, low reactive, odorless.
<b>Acclaim® Polyol 12200 N</b>	10	12,000	6,000	Low-monomer polyether, low reactive, odorless.
<b>Acclaim® Polyol 18200 N</b>	6	18,000	23,000	Low-monomer polyether, low reactive, odorless.

\* These products represent only a selection of the entire polyether portfolio. Additional polyether products can be found, for example, on the Covestro website: [www.products.covestro.com](http://www.products.covestro.com). Product availability might change.



## Desmophen® Acclaim®

Branched building blocks for NCO and silane-terminated prepolymers suitable for adhesives and sealants with advantages in hydrolysis resistance and flexibility. These high-performance, low-monomer polyether polyols are prepared using Covestro's proprietary IMPACT™ technology, using a patented organo-metallic propoxylation catalyst.



	OH NUMBER APPROX. [mg KOH/g]	MOLECULAR WEIGHT APPROX. [g/mol]	VISCOSITY AT 25°C APPROX. [mPa · s]	COMMENTS
<b>Polyether – triol*</b>				
<b>Desmophen® 4011 T</b>	550	300	1,800	Low-reactive polyether, low-molecular-weight product.
<b>Desmophen® 1400 BT</b>	400	420	370	Low-reactive polyether, low-molecular-weight product, good compatibility with pMDI.
<b>Desmophen® 1380 BT</b>	385	440	600	Low-reactive polyether, low-molecular-weight product.
<b>Desmophen® 1381 BT</b>	385	440	600	Low-reactive polyether, low-molecular-weight product, lower acidity than 1380 BT.
<b>Desmophen® 28HS98</b>	233	720	250	Low-reactive polyether, low-molecular-weight product.
<b>Desmophen® 3061 BT</b>	56	3,000	500	Reactive polyether.
<b>Baygal® 70RE30</b>	56	3,000	480	Low-reactive polyether.
<b>Desmophen® 4042 BT</b>	45	3,700	790	Low-monomer polyether, low reactive, odorless.
<b>Desmophen® 5034 BT</b>	35	4,800	860	Reactive polyether.
<b>Desmophen® 5035 BT</b>	35	4,800	860	Reactive polyether, only for 2-component systems.
<b>Acclaim® Polyol 6300</b>	28	6,000	1,500	Low-monomer polyether, low reactive, odorless.

	OH NUMBER APPROX. [mg KOH/g]	FILLER CONTENT APPROX. [%]	VISCOSITY AT 25°C APPROX. [mPa · s]	COMMENTS
<b>Filled polyether – triol*</b>				
<b>Desmophen® 5029 GT</b>	20	43 SAN	5,500	Reactive polyether.

\* These products represent only a selection of the entire polyether portfolio. Additional polyether products can be found, for example, on the Covestro website: [www.products.covestro.com](http://www.products.covestro.com). Product availability might change.

## Cardyon®

At Covestro we are working with ground-breaking technology to bring more sustainable innovation into the value chain. Inspired by nature, we are able to reuse CO<sub>2</sub> as valuable material source in polyol production and reduce up to 20 % of fossil feedstock which is normally used.

**Cardyon®** is our innovative CO<sub>2</sub>-based polyol for the production of high-quality polyurethanes. It enables all of us to be responsible suppliers, producers, retailers and consumers and make an impact towards a brighter future, today.



Polyethercarbonate polyol	FUNCTIONALITY	CO <sub>2</sub> CONTENT	OH NUMBER APPROX. [mgKOH/g]	VISCOSITY AT 25°C	MOLECULAR WEIGHT APPROX. [g/mol]	COMMENTS
		[wt. %]		APPROX. [mPa · s]		
<b>Cardyon® LC05</b>	3	14	53	5,500	3,000	<b>Cardyon® LC05</b> is a polyethercarbonate polyol.
<b>Cardyon® LC06</b>	2	19	56	7,000	2,000	<b>Cardyon® LC06</b> is a polyethercarbonate polyol.
<b>Cardyon® LC07</b>	2	14	112	900	1,000	<b>Cardyon® LC07</b> is a polyethercarbonate polyol.



## Desmophen® C

Polycarbonate diol – where softness and toughness meet flexibility combined with high-end resistance to improve PU systems with respect to hydrolysis, oxidative and thermal impacts.



### Polycarbonate – diol

	GRADE	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	SOLIDIFICATION APPROX. [°C]	EQUIVALENT WEIGHT [g/mol]	COMMENTS
<b>Desmophen® C 1100</b>	Polyester-polycarbonate diol	3.3	3,200	15	515	Low-viscous grade, good compatibility, building block for polymer synthesis, flexible and weather-stable sealants and coatings, cast systems, soft-touch and self-healing.
<b>Desmophen® C 1200</b>	Polyester-polycarbonate diol	1.7	16,500	15	1,000	Low-viscous grade, good compatibility, building block for polymer synthesis, flexible and weather-stable sealants and coatings, cast systems, soft-touch and self-healing.
<b>Desmophen® C 2102</b>	Polycarbonate diol	3.3	410 at 75°C	33–62	515	Symmetric building block for polymer synthesis, flexible and weather-stable sealants and coatings, cast systems, soft-touch and self-healing.
<b>Desmophen® C 2202</b>	Polycarbonate diol	1.7	2,300 at 75°C	39–52	1,000	Symmetric building block for polymer synthesis, flexible and weather-stable sealants and coatings, cast systems, soft-touch and self-healing.
<b>Desmophen® C XP 2613</b>	Polycarbonate diol	1.7	3,500 at 75°C	–6	1,000	Asymmetric, highly reactive, partial liquid, building block for polymer synthesis, flexible and weather-stable sealants and coatings, cast systems, soft-touch and self-healing.

# Desmophen® NH

The remarkable building block tool box for highly efficient 2K polyaspartic systems – at last a versatile, lightfast polyurea system.



## Aminofunctional resins, aspartics for coatings

	SUPPLYFORM SOLID CONTENT APPROX. [%]	AMINE NUMBER APPROX. [mg KOH/g]	VISCOSITY AT 25°C APPROX. [mPa · s]	EQUIVALENT WEIGHT [g/mol]	COMMENTS
<b>Desmophen® NH 1220</b>	100	244	90	234	Binder or co-resin with high reactivity compared to <b>Desmophen® NH 1420</b> for fast setting very high solids to 100% 2K polyaspartic coatings (putty elastomers, spray-applied aliphatic polyurea).
<b>Desmophen® NH 1420</b>	100	201	1,450	276	Standard grade, polyaspartic resin with standard reactivity for very high solids to 100% solid 2K polyaspartic coatings, indoor-air quality compliant (e.g. AgBB 2018), compliant to construction standard EN1504.
<b>Desmophen® NH 1422</b>	100	201	1,450	276	Less reactive version of <b>Desmophen® NH 1420</b> .
<b>Desmophen® NH 1423 LF</b> <span style="color: green; font-weight: bold;">NEW</span>	100	205	1,500	274	Comparable application properties like <b>Desmophen® NH 1420</b> . Improved industrial hygiene, due to significantly reduced fumaric acid diethylester content (< 0.1 wt.-%). Better gloss retention in pigmented topcoats. Better color stability in clearcoat applications.
<b>Desmophen® NH 1520</b>	100	191	1,400	290	Binder or co-resin with lower reactivity compared to <b>Desmophen® NH 1420</b> for very high solids to 100% solid 2K polyaspartic coatings.
<b>Desmophen® NH 1523 LF</b> <span style="color: green; font-weight: bold;">NEW</span>	100	200	2,000	280	Comparable application properties like <b>Desmophen® NH 1520</b> . Improved industrial hygiene due to significantly reduced fumaric acid diethylester content (< 0.1 wt.-%). Better color stability in clearcoat applications and improved application robustness.
<b>Desmophen® NH 1521</b>	90 in BA	172	160	326	Supply form of <b>Desmophen® NH 1520</b> .
<b>Desmophen® NH 1720</b> <span style="color: green; font-weight: bold;">NEW</span>	100	190	100	295	Reactive diluent for very high solids to 100% solid 2K polyaspartic coatings (floor coatings, corrosion protection topcoats), indoor-air quality compliant (e.g. AgBB 2018), compliant to construction standard EN1504, higher impact resistance and reduced brittleness of cured coatings.
<b>Desmophen® NH 1723 LF</b> <span style="color: green; font-weight: bold;">NEW</span>	100	195	110	290	Comparable application properties like <b>Desmophen® NH 1720</b> . Improved industrial hygiene, due to significantly reduced fumaric acid diethylester content (< 0.1 wt.-%).



## Desmocoll®

Polyester polyurethanes for solvent-borne adhesives.



	SOLUTION VISCOSITY AT 23°C (15% IN MEK) APPROX. [mPa · s]	CRYSTALLIZATION TIME APPROX.	MIN. ACTIVATION TEMPERATURE [°C] APPROX.	THERMO- PLASTICITY	SOFTENING POINT (ASTM D 816) (1K) APPROX. [°C]	APPEARANCE	COMMENTS
<b>Desmocoll® 140</b>	90	48 h	45	high	< 40	Transparent	Foil lamination.
<b>Desmocoll® 176</b>	600	48 h	45	high	45	Turbid	Textile lamination, grinding belts.
<b>Desmocoll® 400/1</b>	600	30 min	50	high	50	Transparent	Soluble in methylene chloride, conveyor belt repair.
<b>Desmocoll® 400/2</b>	1,000	30 min	50	high	50	Transparent	
<b>Desmocoll® 400/3</b>	1,750	30 min	50	high	50	Transparent	
<b>Desmocoll® 406</b>	600	72 h	50	high	40	Turbid	Contact adhesives, lamination.
<b>Desmocoll® 500/1</b>	225	5 min	50	high	50	Transparent	Soluble in toluene and methylene chloride, conveyor belt repair.
<b>Desmocoll® 500/2</b>	600	5 min	50	high	50	Transparent	
<b>Desmocoll® 526</b>	600	48 h	50	medium	60	Turbid	Contact adhesives.
<b>Desmocoll® 530/1</b>	690	30 min	55	low	75	Transparent	Fast crystallizing, high 1K heat resistance.
<b>Desmocoll® 530/2</b>	1,200	30 min	55	low	75	Transparent	
<b>Desmocoll® 530/3</b>	1,950	30 min	55	low	75	Transparent	

## Desmocoll®

Polyester polyurethanes for solvent-borne adhesives.

	SOLUTION VISCOSITY AT 23°C (15% IN MEK) APPROX. [mPa · s]	CRYSTALLIZATION TIME APPROX.	MIN. ACTIVATION TEMPERATURE [°C] APPROX.	THERMO- PLASTICITY	SOFTENING POINT (ASTM D 816) (1K) APPROX. [°C]	APPEARANCE	COMMENTS
<b>Desmocoll® 540/1</b>	300	10 min	60	low	80	Slightly turbid	Premium grade, highest 1K heat resistance.
<b>Desmocoll® 540/2</b>	750	10 min	60	low	80	Slightly turbid	
<b>Desmocoll® 540/3</b>	1,250	10 min	60	low	80	Slightly turbid	
<b>Desmocoll® 540/4</b>	1,800	10 min	60	low	80	Slightly turbid	
<b>Desmocoll® 540/5</b>	2,850	10 min	60	low	80	Slightly turbid	
<b>Desmocoll® 621/0</b>	1,250	2 h	55	low	70	Transparent	General purpose.
<b>Desmocoll® 621/1</b>	1,800	2 h	55	low	70	Transparent	
<b>Desmocoll® 621/2</b>	2,600	2 h	55	low	70	Transparent	
<b>Desmocoll® XP 2597/2</b>	750	50 min	45	low	75	Slightly turbid	Footwear, good initial heat resistance.
<b>Desmocoll® XP 2597/3</b>	1,250	50 min	45	low	75	Slightly turbid	
<b>Desmocoll® XP 2597/4</b>	1,850	50 min	45	low	75	Slightly turbid	
<b>Desmocoll® XP 2597/5</b>	2,650	50 min	45	low	75	Slightly turbid	





## Desmomelt® Nonreactive resins

Linear, thermo-activatable polyurethanes for adhesives with terminal hydroxyl groups based on crystallizing polyester polyols and aromatic diisocyanates. They are available in the form of granules for extrusion or direct coating and powder for scatter coating applications.



### Linear, thermo-activatable polyurethanes

	SOLUTION VISCOSITY AT 23°C (15% IN MEK) APPROX. [mPa · s]	CRYSTALLIZATION TIME [min] APPROX.	MIN. ACTIVATION TEMPERATURE [°C] APPROX.	THERMO-PLASTICITY	SOFTENING POINT (ASTM D 816) (1K) APPROX. [°C]	COMMENTS
<b>Desmomelt® 530</b>	1,200	30	55	low	75	Extruded flat products made from this raw material (hot melt adhesive films and fleeces) have outstanding adhesion on a large number of materials.
<b>Desmomelt® 540/1</b>	300	10	60	low	80	Extruded flat products made from this raw material (hot melt adhesive films and fleeces) have outstanding adhesion on a large number of materials. It has high initial bond strength and thermal stability.
<b>Desmomelt® 540/3</b>	1,850	10	60	low	80	Extruded flat products made from this raw material (hot melt adhesive films and fleeces) have outstanding adhesion on a large number of materials. It has high initial bond strength and thermal stability.
<b>Desmomelt® VP KA 8702</b>	200	10	60	low	80	Powder particle size < 600 µm. Mainly textile and leather lamination.

## Desmolac®

Nonfunctional high molecular weight polyurethane resins for plastic finishes.

	SUPPLY FORM SOLID CONTENT APPROX. [%]	GRADE	VISCOSITY AT 23°C APPROX. [mPa · s]	COMMENTS
<b>Desmolac® 2100</b>	100	MDI based	800 (30% in MEK)	Binder for physically drying primers and finishes for plastic substrates.
<b>Desmolac® 4340 X/IB</b>	40 in X/IB	IPDI based	7,500	Alone or in combination with polyisocyanates for primers, basecoats or finishes for flexible substrates.





# Pergut®

Coating and adhesive raw materials based on chlorinated rubber. All grades with low content of toluene ( $\leq 2.5\%$ ) and extremely low content of  $\text{CCL}_4$  ( $< 0.005\%$ ).



	VISCOSITY* AT 23°C APPROX. [mPa · s]	CHLORINE CONTENT [wt. %]	RAW MATERIAL	COMMENTS
<b>Pergut® S 5</b>	5	$\geq 64.5$	Polybutadiene	Hot-seal coatings, binder for anti-corrosion coatings, combination binder, e.g., for alkyd resins, acrylates and ketone resins.
<b>Pergut® S 10</b>	11	$\geq 64.5$	Polyisoprene	Binder, e.g., for anticorrosion coatings and road marking.
<b>Pergut® B 10</b>	10	$\geq 64.0$	Polybutadiene	Binder, e.g., for anticorrosion coatings and road marking.
<b>Pergut® S 20</b>	20	$\geq 64.5$	Polyisoprene	Binder for adhesives and, e.g., anti-corrosion, concrete, roadmarking & printing inks.
<b>Pergut® B 20</b>	20	$\geq 64.0$	Polybutadiene	Binder, e.g., for anti-corrosion, concrete & roadmarking.
<b>Pergut® S 40</b>	42	$\geq 64.5$	Polyisoprene	Binder for adhesives and, e.g., anti-corrosion, concrete, swimming pools; combination binder, e.g., for alkyd resins, acrylates and ketone resins.
<b>Pergut® S 90</b>	92	$\geq 64.5$	Polyisoprene	Binder for adhesives and, e.g., for swimming pools and concrete coatings.
<b>Pergut® S 130</b>	150	$\geq 64.5$	Natural rubber	Used as primer and adhesion promoter between rubber and metal.
<b>Pergut® S 170</b>	165	$\geq 64.5$	Polyisoprene	Used as primer and adhesion promoter between rubber and metal.

\* Viscosity and iodine color value measured in 18.5% solution in toluene



# Legend

## Solvents

BA	Butyl acetate
EA	Ethyl acetate
IB	Isobutanol
MPA	Methoxypropylacetate
MEK	Methylethylketone
SN	Solvent naphtha
X	Xylene
SAN	Styrene acrylonitrile copolymer

## Other abbreviations

pMDI	Polymeric diphenylmethane diisocyanate
T <sub>g</sub>	Glass transition temperature



# Fast-lane access to polyurethane innovations

At Covestro, innovation is in our DNA. Ever since Otto Bayer discovered polyurethanes in 1937, we have been driving polyurethane innovations in coatings and adhesives as well as in other application areas. As our partner, you enjoy fast-lane access to polyurethane innovations, and can help us in developing the next generation of polyurethanes to meet the industry's upcoming challenges and needs.

What can we offer you?

- Powerful know-how on both established and new polyisocyanates, as well as on new polyurethane hybrid technologies.
- The prospect of new application technologies to enable efficient processes.
- More sustainable, partly biomass- or CO<sub>2</sub>-based materials that do not sacrifice high performance.

**Join us to shape the future!**









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Covestro Deutschland AG  
Kaiser-Wilhelm-Allee 60  
51373 Leverkusen  
Germany

[coatings.covestro.com](https://www.coatings.covestro.com)  
[info@covestro.com](mailto:info@covestro.com)

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<sup>1</sup>) Please see the "Guidance on Use of Covestro Products in a Medical Application" document.

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