Polyols & Aspartics for Reaction with Polyisocyanates

Nonreactive Resins

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

covestro


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

Contents

Covestro – leading in material solutions

As the world's leading manufacturer of aliphatic and aromatic polyisocyanates, Covestro offers an extensive range of innovative products and solutions for the coatings and adhesives industries. As your customers become more demanding in their expectations for the quality, durability, workability and sustainability of your products, we can help you to turn these challenges into a competitive advantage. That is what drives us to push the boundaries of what is possible.

The key to creating added value for you, our customers, as well as for society and the environment is innovation. At Covestro, we innovate not only to address the key global challenges of population growth, urbanization, climate change, digitalization and increasing mobility; we innovate to have a sustainable business that enables us to live up to our business purpose of "making the world a brighter place." In the final analysis, this comes down to developing sustainable solutions that take the entire life cycle of a product into account. We are increasing our on-site efficiency, e.g., by recycling salt and water in our production plants. We are expanding our resource base, e.g., by turning CO_2 into a raw material in the manufacturing of plastics. And we are developing materials that are more energy-efficient and save natural resources.

In our Coatings, Adhesives, Specialties (CAS) segment, we systematically develop and supply aliphatic and aromatic isocyanates and their derivatives as well as polyurethane dispersions. Our raw materials are used for coatings, adhesives, sealants and specialty products, such as elastomers, high-quality films, 3D printing products, cosmetics, textiles and medical products. The main application areas are in the automotive, transportation, infrastructure, construction, wood processing and furniture industries. In this segment, our innovative efforts are focusing on enhancing efficiency, improving quality, boosting sustainability and environmental aspects such as reducing solvent content.

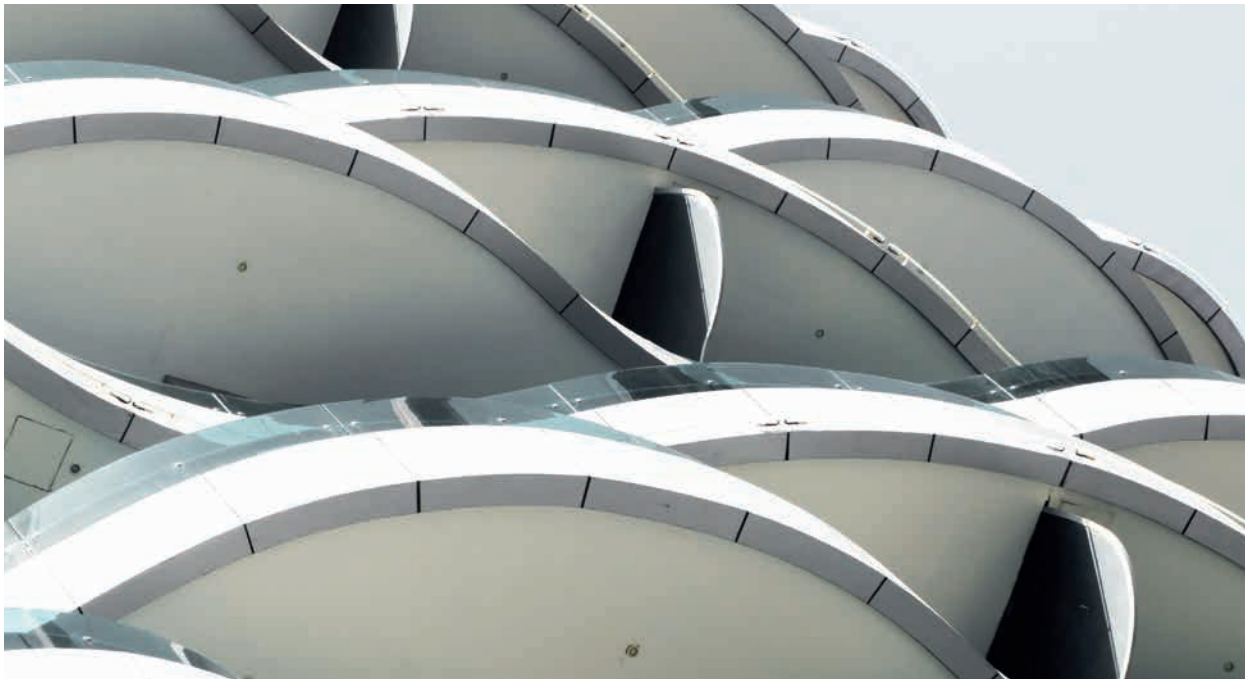
We are proud of over 80 years of groundbreaking innovations. But we are not defined by our past. Even with decades of experience behind us, Covestro remains a young enterprise. In a corporate world that can often be dull and uninspiring, we want to act in a curious, courageous, and colorful way: trying out new things, questioning established ways, and pushing boundaries – for your benefit.

What we do

As a world-leading polymer and material science company, we inspire innovation and drive growth through profitable products and technologies that benefit society and reduce the impact on the environment.

Who does all this?

It's our people! And the way we work together as one global team following a set of six elementary principles – value creation, sustainability, innovation, focus on people, safety, and fair play. This is our formula for success.



What this means for our Coatings, Adhesives and Specialties business

Quality & supply security
Our products are of outstanding quality and we offer supply security – worldwide.

Covestro, the world's leading manufacturer of aliphatic and aromatic polyisocyanates, offers an extensive range of raw materials and services for the coatings and adhesives industry. This allows the very latest technology to be used extremely effectively for a variety of applications.

Our global setup enables you to increase your competitive advantage.

What we offer:

- A global network of research & development centers where our staff are dedicated to offering solutions for the coatings and adhesives industry.
- A unique setup and worldwide network of state-of-the-art production sites ensuring short lead times and supply chain flexibility.
- Outstanding product quality through fulfilling the requirements of state-of-the-art quality, environmental and safety (HSEQ) as well as energy management standards; we are proud of having enjoyed ISO 9001, ISO 14001, ISO 18001 and ISO 50001 certifications for many years.

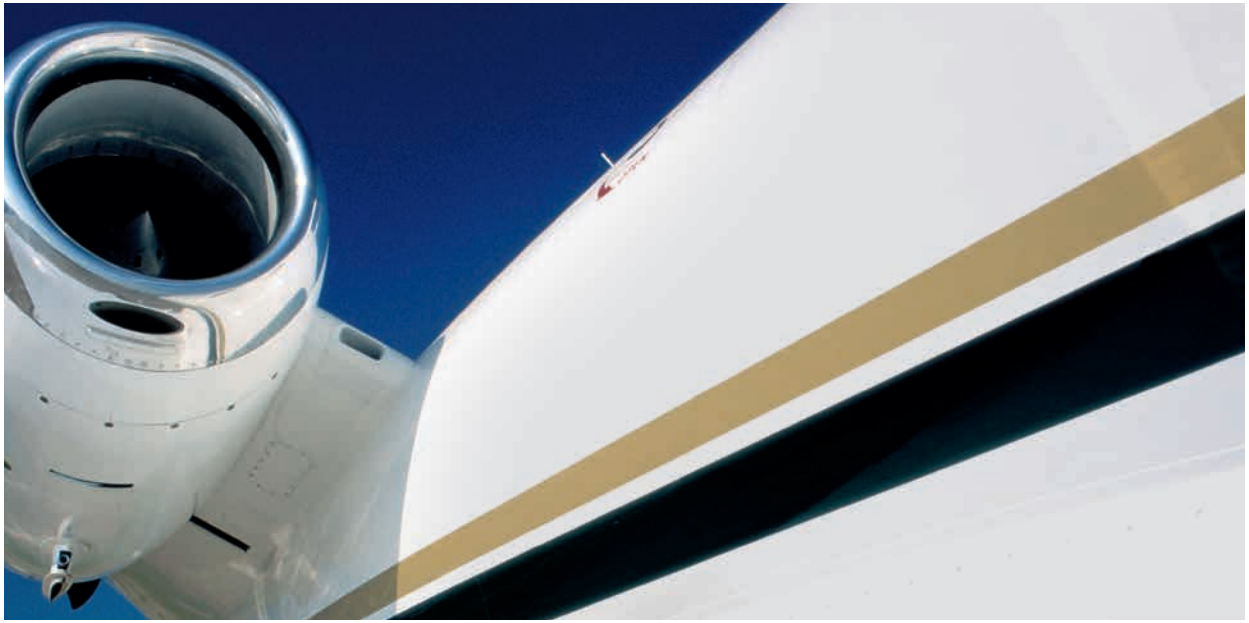
Covestro is your reliable partner for polyurethane chemistry.

Solutions to enhance your process efficiency
Nowadays, the quality demands 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 biobased 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.



Polyols – the reaction partners

Pioneering polyurethane chemistry

Ever since the Otto Bayer's discovery of the polyisocyanate-polyaddition process in 1937, Bayer – now Covestro – has pioneered polyurethane chemistry. 50 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_g APPROX. [°C]	COMMENTS
Baycoll® AD 5027	Crystalline	0.9	2,800 at 75°C	+64	Flexible packaging, adhesion (+), PVC (+++), hydrolysis resistance (++), slip agent compatibility (––), hot melt.
Desmophen® 1700	Amorph	1.3	17,500	–51	Flexibilizing resin to improve toughness, durability and abrasion resistance of furniture, floor and parquet coatings.
Desmophen® 1652	Amorph	1.6	11,000	–58	Polyol for flexible sealants, also for plastics coatings incl. soft-touch, low saponification stability.
Baycoll® AD 2055	Amorph	1.7	630 at 75°C	–65	Flexible packaging, adhesion (+), hydrolysis resistance (++), slip agent compatibility (+++).
Desmophen® VPLS 2328	Amorph	8.0	800	–75	For highly elastic PU coatings, also in combination with hard Desmophen® products as a flexibilizing component in 2K PU systems, transparent cast systems.

Desmophen®
Baycoll®

Polyester with aromatic and aliphatic building blocks, linear

	CHARACTERISTICS	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	Tg APPROX. [°C]	COMMENTS
Baycoll® AD 2047	Amorph	1.7	7,000 at 75°C	–21	Flexible packaging, adhesion (+++), hydrolysis resistance (++), slip agent compatibility (+++), viscosity (–).
Baycoll® CD 2084	Amorph	2.5	120 at 75°C	–56	Flexible packaging, adhesion (+), hydrolysis resistance (+), slip agent compatibility (+), viscosity (+), compatibility (+).
Desmophen® 850	Amorph	8.5	625 at 75°C	–15	In combination with other Desmophen® products for 2K PU coatings.

+++ = excellent + = good
++ = very good – = poor

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_g APPROX. [°C]	COMMENTS
Desmophen® 1800	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 Desmodur® L.
Desmophen® 2015 W FLÜSSIG NEW	Slightly branched polyester polyol	1.8	21,500	–52	Modification of Desmophen® 1800.
Desmophen® VPLS 2249/1	Branched, short-chain polyester polyol	15.5	1,900	–47	Polyol for aliphatic, 100% solid coatings, hardening component in weather-stable polyurethane systems and transparent cast systems.
Desmophen® XP 2488	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_g APPROX. [°C]	COMMENTS
Baycoll® AV 2113	Highly branched polyester polyol	3.3	650 at 75°C	–59	PVC adhesion, hydrolysis resistance (++), slip agent compatibility (+).
Desmophen® 670	Slightly branched polyester polyol	4.3	2,200 (80% in BA)	–29	For flexible, weather-stable and colorfast coatings, especially for plastics, for the flexibilization of hard Desmophen® products.
Desmophen® 1200	Slightly branched polyester polyol	5.0	23,500	–42	Mixed with highly branched Desmophen® products and in combination with Desmodur® L, HL, IL or N in 2K PU coatings for wood and various plastics.
Desmophen® 1100	Branched polyester polyol	6.5	30,500	–42	Mixed with highly branched Desmophen® products and in combination with Desmodur® L, HL, IL or N in 2K PU coatings for wood and various plastics.
Desmophen® 800	Highly branched polyester polyol	8.6	850 (70% in MPA)	–32	For air-drying 2K coatings yielding hard, chemically resistant films, high impact resistance, toughness and abrasion resistance.

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 [%]	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	T_g APPROX. [°C]	COMMENTS
Desmophen® 690 MPA	Branched polyester polyol	70 in MPA	1.4	10,000	+42	Weather-stable and colorfast specialty resin, e.g., to improve adhesion on PVC.
Desmophen® T 1665 SN/IB	Slightly branched polyester polyol	65 in SN/IB	1.7	2,700	+16	Combination resin for baking primers, automotive primer surfacers, can/coil coatings and industrial coatings with very good weather stability.
Desmophen® 680 X	Branched polyester polyol	60 in X	1.8	2,750	+20	For fast-drying, weather-stable coatings, especially for industrial and transportation applications.
Desmophen® T 1775 SN	Slightly branched polyester polyol	75 in SN	2.0	3,700	–14	Co-reactant for blocked polyisocyanates for can/coil and industrial coatings.
Desmophen® 680 BA	Branched polyester polyol	70 in BA	2.2	3,000	+20	For fast-drying, weather-stable coatings, especially for industrial and transportation applications.
Desmophen® 670 BA	Slightly branched polyester polyol	80 in BA	3.5	3,000	–21	For fast-drying, weather-stable coatings, especially for industrial and transportation applications.
Desmophen® VP LS 2388	Slightly branched polyester polyol	80 in BA	3.8	3,000	–21	For flexible 2K PU coatings with QUV stability (UV-B) and chemical resistance, especially for plastics, for flexibilizing of hard Desmophen® products.
Desmophen® 650 MPA	Branched polyester polyol	65 in MPA	5.3	20,000	+48	For weather-stable, colorfast and chemically resistant coatings, primarily for transportation and aircraft applications and high-grade industrial finishing.

Desmophen®

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

GRADE	SUPPLY FORM SOLID CONTENT [%]	OH CONTENT (SUPPLY FORM) APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	T_g APPROX. [°C]	COMMENTS
Desmophen® 651 MPA	Branched polyester polyol	65 in MPA	5.5	14,500	+48	Properties largely comparable with Desmophen® 650, better compatibility with other binders in aromatic solvents, for barrier coating on tropical woods.
Desmophen® 651 MPA/X	Branched polyester polyol	67 in MPA/X	5.5	25,000	+48	Properties largely comparable with Desmophen® 650, better compatibility with other binders in aromatic solvents, for barrier coating on tropical woods.
Desmophen® 775 XP	Branched polyester polyol	75 in BA	9.5	5,000	–17	High solid version of Desmophen® 650 with improved chemical resistance and better yellowing resistance upon weathering.
Desmophen® 800 80% BA	Highly branched polyester polyol	80 in BA	6.9	3,500	–24	Supply form Desmophen® 800.
Desmophen® 800 MPA	Highly branched polyester polyol	85 in MPA	7.5	11,000	–24	In combination with Desmodur® N 75, N 3390 and N 3600 very good weathering properties and gloss retention, due to the high crosslinking ratio good solvent and chemical resistance.
Desmophen® VPLS 2089	Branched polyester polyol	75 in BA	6.0	10,000	+15	Combination with Desmodur® N 3200 in two-component polyurethane coatings for higher solids (lower VOC), outstanding gloss retention, light stability and good chemical and abrasion resistance.
Desmophen® 631 MPA	Branched polyester polyol	75 in MPA	6.4	19,500	–23	For flexible 2K PU coatings with QUV stability (UV-B) and chemical resistance, especially for plastics, for flexibilizing of hard Desmophen® 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_g APPROX. [°C]	COMMENTS
Desmophen® PL 800	70 in X	2.5	1,500	–16	Low-molecular-weight polyester, good pigment wetting, gloss.
Desmophen® PL 300 X	60 in X	2.7	5,350	–4	Reactive polyester for air-drying 2K PU coating, especially for wood in combination with Desmodur® L and IL grades.
Desmophen® 1300 EA	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.
Desmophen® 1300 BA	75 in BA	3.2	1,000	–13	
Desmophen® 1300 X	75 in X	3.2	3,450	–13	
Desmophen® PL 817	75 in X/MEK	3.3	10,000	–4	Non-drying, in combination with other resins, good hardness and for dull finish top coat.
Desmophen® 881 X	75 in X	3.6	12,500	+3	Co-reactant for polyisocyanates in the formulation of air-drying two-pack coatings. Combination resin to achieve high-gloss formulations, very good pigment wetting, use in pigment pastes.
Desmophen® 1388 EA	71 in EA	4.7	950	+ 2	Improved hardness, for 2K PU coatings for wood in combination with Desmodur® IL, L or N 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-monol 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
Desmophen® 1262 BD	260	430	70	Low-reactive polyether, low-molecular-weight product.
Desmophen® 1110 BD	112	1,000	140	Low-reactive polyether.
Desmophen® 1111 BD	112	1,000	155	Low-monol polyether, low reactive, odorless, good compatibility with pMDI.
Desmophen® 2060 BD	56	2,000	310	Low-reactive polyether, good compatibility with pMDI.
Desmophen® 2061 BD	56	2,000	345	Low-monol polyether, low reactive, odorless, good compatibility with pMDI.
Desmophen® 4028 BD	28	4,000	870	High-reactive polyether, good compatibility with pMDI.
Desmophen® 5168 T	28	4,000	870	Reactive polyether, good compatibility with pMDI.
Acclaim® Polyol 4200	28	4,000	970	Low-monol polyether, low reactive, odorless, good compatibility with pMDI.
Acclaim® Polyol 8200 N	14	8,000	3,000	Low-monol polyether, low reactive, odorless.
Acclaim® Polyol 12200 N	10	12,000	6,000	Low-monol polyether, low reactive, odorless.
Acclaim® Polyol 18200 N	6	18,000	23,000	Low-monol 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. 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-monol polyether polyols are prepared using Covestro's proprietary IMPACT™ technology, using a patented organo-metallic propoxylation catalyst.

Polyether – triol*

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

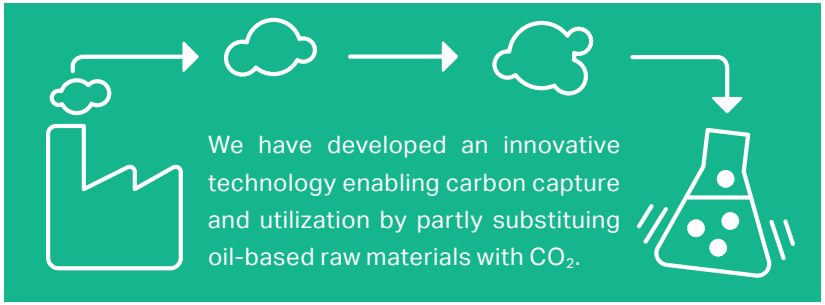
Filled polyether – triol*

	OH NUMBER APPROX. [mg KOH/g]	FILLER CONTENT APPROX. [%]	VISCOSITY AT 25°C APPROX. [mPa · s]	COMMENTS
Desmophen® 5029 GT	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. Product availability might change.

Cardyon®

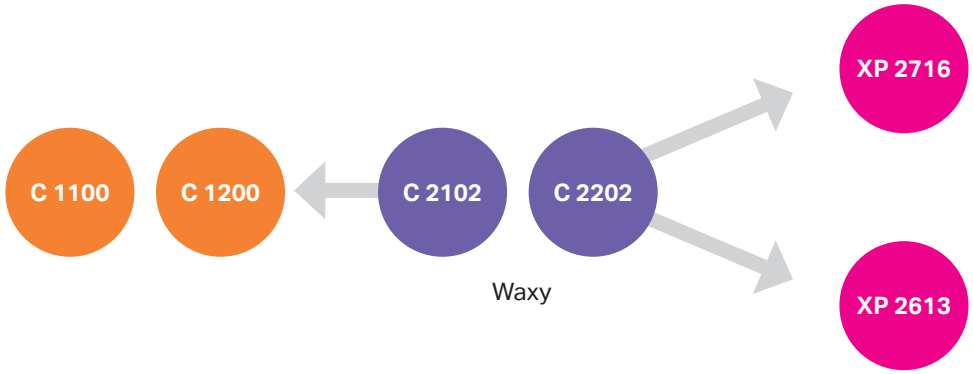
Cardyon® is an innovative raw material for the production of high-quality polyurethanes. It is made with CO_2 (up to 20%) – a raw material which is both abundant and available as a chemical feedstock.
Cardyon® represents a breakthrough innovation which enables manufacturers to look at alternative and more sustainable raw materials while reducing their reliance on fossil fuels.

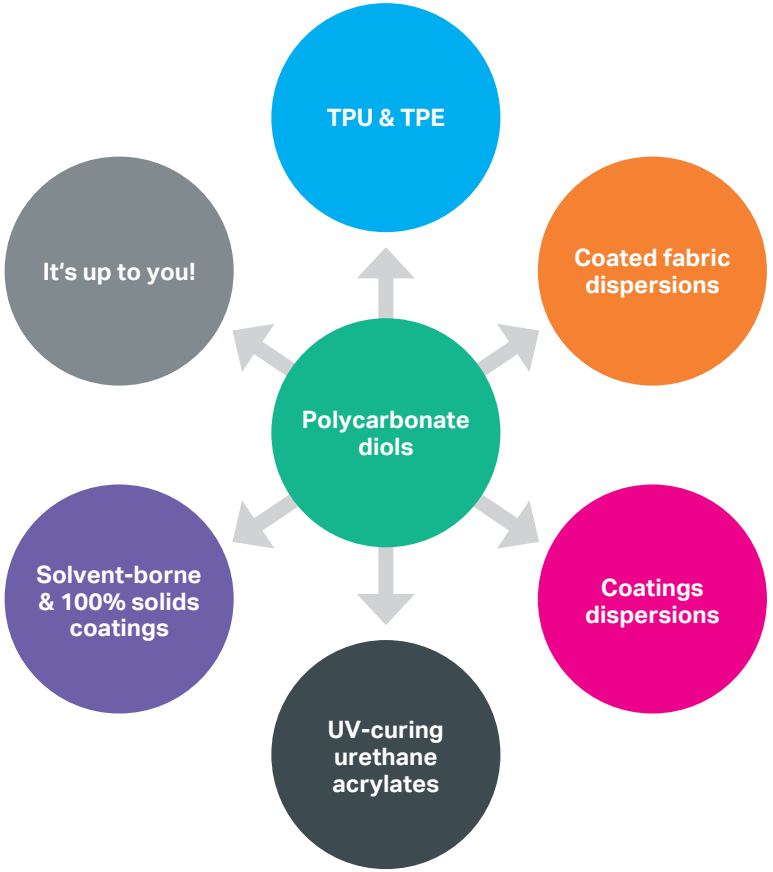


Polyethercarbonate polyol	FUNCTIONALITY	CO_2 CONTENT (wt. %)	OH NUMBER APPROX. [mgKOH/g]	VISCOSITY AT 25°C [mPa · s]	MOLECULAR WEIGHT APPROX. [g/mol]	COMMENTS
Cardyon® LC05	3	14	53	5,500	3,000	Cardyon® LC05 is a polyethercarbonate polyol for the production of conventional flexible slapstock polyurethane foam.
Cardyon® LC06	2	19	56	7,000	2,000	Cardyon® LC06 is a polyethercarbonate polyol suitable for TPU-applications.
Cardyon® LC07	2	14	112	900	1,000	Cardyon® LC07 is a polyethercarbonate polyol for coatings, adhesives and sealants applications as well as for elastomers.

Desmophen® C – polycarbonate diols

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





Ester-carbonate diol, more asymmetric

Pure carbonate diol, more symmetric

Pure carbonate diol, more asymmetric

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
Desmophen® C 1100	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.
Desmophen® C 1200	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.
Desmophen® C 2102	Polycarbonate diol	3.3	410 at 75°C	33–62	515	Building block for polymer synthesis, flexible and weather-stable sealants and coatings, cast systems, soft-touch and self-healing.
Desmophen® C 2202	Polycarbonate diol	1.7	2,300 at 75°C	39–52	1,000	Building block for polymer synthesis, flexible and weather-stable sealants and coatings, cast systems, soft-touch and self-healing.
Desmophen® C XP 2716	Polycarbonate diol	5.2	4,100	–24	326	Low molecular weight, low viscosity, building block for polymer synthesis, flexible and weather-stable sealants and coatings, cast systems, soft-touch and self-healing.
Desmophen® C XP 2613	Polycarbonate diol	1.7	3,500 at 75°C	–6	1,000	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 [%]	AMINE NUMBER APPROX. [mg KOH/g]	VISCOSITY AT 25°C APPROX. [mPa · s]	EQUIVALENT WEIGHT [g/mol]	COMMENTS
Desmophen® NH 1220	100	244	90	234	High-reactive binder or co-resin for fast setting very high solids to 100% solid 2K PU coatings (putty elastomers, spray-applied aliphatic polyurea).
Desmophen® NH 1420	100	201	1,450	276	Standard, moderate reactive polyaspartic resin or co-resin for very high solids to 100% solid 2K PU coatings (floor coatings, corrosion protection, topcoats), indoor-air-quality compliant.
Desmophen® NH 1422	100	201	1,450	276	Less reactive version of Desmophen® NH 1420.
Desmophen® NH 1423 NEW	100	206	1,500	270	Comparable application properties like Desmophen® NH 1420, improved industrial hygiene. Better gloss retention in pigmented topcoat applications.
Desmophen® NH 2850 XP	100	190	100	295	Reactive diluent for very high solids to 100% solid 2K PU coatings (floor coatings, corrosion protection topcoats), indoor-air quality compliant.
Desmophen® NH 1520	100	191	1,400	290	Low-reactive polyaspartic resin or co-resin for very high solids to 100% solid 2K PU coatings (corrosion protection topcoats).
Desmophen® NH 1521	90 in BA	172	160	326	Supply form of Desmophen® NH 1520.

High-performance polyaspartic

Customers key properties can be matched by formulations based on Covestro polyaspartic systems.

According to construction standard EN1504	Coating formulation	According to indoor air quality regulations, e.g., AgBB 2015
Elongation (up to 400%)	✓	VOC emission limits after 3 days
Shore hardness (up to D85)	✓	VOC emission limits after 28 days
Tire mark resistance	✓	Olfactory examination after 28 days

Desmocoll®

Polyester polyurethanes for solvent-borne adhesives

	SOLUTION VISCOSITY AT 23°C (15% IN MEK) APPROX. [mPa · s]	CRYSTALLIZATION TIME (DIN 53505) APPROX.	MIN. ACTIVATION TEMPERATURE [°C] (DIN EN 12961) APPROX.	THERMO-PLASTICITY	SOFTENING POINT (ASTM D 816) (1K) APPROX. [°C]	APPEARANCE	COMMENTS
Desmocoll® 140	90	48 h	45	high	< 40	Transparent	Foil lamination.
Desmocoll® 176	600	48 h	45	high	45	Turbid	Textile lamination, grinding belts.
Desmocoll® 400/1	600	30 min	50	high	50	Transparent	Soluble in methylene chloride, conveyor belt repair.
Desmocoll® 400/2	1,000	30 min	50	high	50	Transparent	
Desmocoll® 400/3	1,750	30 min	50	high	50	Transparent	
Desmocoll® 406	600	72 h	50	high	40	Turbid	Contact adhesives, lamination.
Desmocoll® 500/1	225	5 min	50	high	50	Transparent	Soluble in toluene and methylene chloride, conveyor belt repair.
Desmocoll® 500/2	600	5 min	50	high	50	Transparent	
Desmocoll® 526	600	48 h	50	medium	60	Turbid	Contact adhesives.
Desmocoll® 530/1	690	30 min	55	low	75	Transparent	Fast crystallizing, high 1K heat resistance.
Desmocoll® 530/2	1,200	30 min	55	low	75	Transparent	
Desmocoll® 530/3	1,950	30 min	55	low	75	Transparent	

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Desmocoll® 540/1	300	10 min	60	low	80	Slightly turbid	Premium grade, highest 1K heat resistance.
Desmocoll® 540/2	750	10 min	60	low	80	Slightly turbid	
Desmocoll® 540/3	1,250	10 min	60	low	80	Slightly turbid	
Desmocoll® 540/4	1,800	10 min	60	low	80	Slightly turbid	
Desmocoll® 540/5	2,850	10 min	60	low	80	Slightly turbid	
Desmocoll® 621/0	1,250	2 h	55	low	70	Transparent	General purpose.
Desmocoll® 621/1	1,800	2 h	55	low	70	Transparent	
Desmocoll® 621/2	2,600	2 h	55	low	70	Transparent	
Desmocoll® XP 2597/2	750	50 min	45	low	75	Slightly turbid	Footwear, good initial heat resistance.
Desmocoll® XP 2597/3	1,250	50 min	45	low	75	Slightly turbid	
Desmocoll® XP 2597/4	1,850	50 min	45	low	75	Slightly turbid	
Desmocoll® XP 2597/5	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] (DIN DIN 53505)	MIN. ACTIVATION TEMPERATURE [°C] (DIN EN 12961) APPROX.	THERMO-PLASTICITY	SOFTENING POINT [°C] (ASTM D 816)	PARTICLE SIZE [µm]	COMMENTS
Desmomelt® VP KA 8702	200	10	60	low	80	< 600	Powder. Mainly textile and leather lamination.
Desmomelt® 530	1200	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.
Desmomelt® 540/1	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.
Desmomelt® 540/3	1850	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.

Desmolac®

Nonfunctional molecular weight polyurethane resins for plastic finishes.

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

Pergut®

Coating and adhesive raw materials based on chlorinated rubber. All grades with low content of toluene (≤ 2.5%) and extremly low content of CCL_4 (< 0.005%).

	VISCOSITY* AT 23°C APPROX. [mPa · s]	CHLORINE CONTENT [wt. %]	RAW MATERIAL	COMMENTS
Pergut® S 5	5	≥ 64.5	Polybutadiene	Hot-seal coatings, binder for anti-corrosion coatings, combination binder, e.g., for alkyd resins, acrylates and ketone resins.
Pergut® S 10	11	≥ 64.5	Polyisoprene	Binder, e.g., for anticorrosion coatings and road marking.
Pergut® B 10	10	≥ 64.0	Polybutadiene	Binder, e.g., for anticorrosion coatings and road marking.
Pergut® S 20	20	≥ 64.5	Polyisoprene	Binder for adhesives and, e.g., anti-corrosion, concrete, roadmarking & printing inks.
Pergut® B 20	20	≥ 64.0	Polybutadiene	Binder, e.g., for anti-corrosion, concrete & roadmarking.
Pergut® S 40	42	≥ 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.
Pergut® S 90	92	≥ 64.5	Polyisoprene	Binder for adhesives and, e.g., for swimming pools and concrete coatings.
Pergut® S 130	150	≥ 64.5	Natural rubber	Used as primer and adhesion promoter between rubber and metal.
Pergut® S 170	165	≥ 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	MEK	Methylethylketone	pMDI	Polymeric diphenylmethane diisocyanate
EA	Ethyl acetate	SN	Solvent naphtha	T_g	Glass transition temperature
IB	Isobutanol	X	Xylene		
MPA	Methoxypropylacetate	SAN	Styrene acrylonitrile copolymer		

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, biomass- or CO_2-based materials that do not sacrifice high performance.

Join us to shape the future!

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