Polyisocyanates and Prepolymers

Desmodur® Bayhydur® Bayhytherm®
Desmotherm® Baybond® Crelan®
Desmocap® Desmoseal®

covestro


Desmodur® Bayhydur® Bayhytherm® Desmotherm® Baybond® Crelan® Desmocap® Desmoseal®

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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.

Grades with shining properties.

Customized properties

Gloss, leveling, scratch resistance, hardness and flexibility can be precisely adjusted by the choice of polyisocyanate and polyol. Chemical resistance, adhesion, light fastness and weather stability are additional properties that can be individually adapted to your specific requirements. Moreover, coatings with easy-to-clean, soft-touch or reflow properties can also be produced through smart formulations.

Pioneering polyurethane chemistry

Ever since Otto Bayer's discovery of the polyisocyanate-polyaddition process in 1937, Bayer – now Covestro – has pioneered polyurethane chemistry. 70 years ago, our company 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.

Wide variety of applications

Our polyisocyanates comprise a broad range of products for one- and two-component (1K/2K) polyurethane systems used in numerous applications. Whether as crosslinkers for 2K polyurethane coatings and adhesives, blocked polyisocyanates for 1K polyurethane baking coatings or hydrophilized polyisocyanates as crosslinkers for water-reducible polyurethane systems, our products come into play wherever crosslinking is used to achieve high resistances and reliable adhesion under efficient conditions. Our solutions are in use today in a variety of applications, such as automotive OEMs, automotive refinishing and coatings for wood, industrial goods and plastics. They are also used in reactive adhesives, textile coatings and anticorrosion coatings.

Flexibility in prepolymers

Our product range of prepolymers comprises aromatic and aliphatic NCO- and silane-terminated products. These prepolymers make a wide range of properties possible in coatings, adhesives and sealants. The typical areas of application include wood coatings, corrosion protection, floor coatings, elastic adhesives in transportation, parquet adhesives, engineered wood constructions, flexible film lamination and sealants.

Desmodur® ultra / Bayhydur® ultra
Setting new standards in industrial hygiene.

Safeguard your business by offering an improved industrial hygiene standard with < 0.1% residual monomer content.

Technical drop-in solution with improved industrial hygiene standard

	CONVENTIONAL 2K PU	COVESTRO'S ULTRA LINE
 High-performance isocyanates technology	✓	✓
 Improved industrial hygiene standard	✓	✓✓
 No additional efforts to comply with the proposed isocyanate use restriction*	✗	✓

* The EU Commission use restriction proposal came into force on August 24, 2020

Improved industrial hygiene standards are important for the entire value chain. Covestro is committed to continually improving products and setting new standards, especially in the field of industrial hygiene. The new Ultra Line opens up the potential for further increasing product safety through a continued reduction of the specified residual monomer content.

With our new Covestro Ultra Line we are introducing a product line with the following beneficial features:

- **Further improves industrial hygiene standards** thanks to a residual monomer content of below 0.1% – in line with the safety measures recommended in the safety data sheets.
- **Can be used in the same way** as the **Desmodur®** and **Bayhydur®** predecessors **in your current formulations,** so you can continue to focus on your core business.
- Makes **easy-to-use 2K PU technology available.**
- **State-of-the-art** and **technically equivalent** to our existing products.

The performance and composition of the Ultra products have not changed in any way – except for their residual monomer content (RMC) specification.

Desmodur® N family

Hardeners for high-performance two-component polyurethane coatings with excellent weatherability and resistance properties. **Desmodur® ultra** qualities perform with < 0.1% monomer content.

HDI trimer

	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	COMMENTS
Desmodur® blulogiq 3190 BA	90 in BA	700	19.6	214	3.5	Thermolatent crosslinker for solvent-borne 2K PUR systems with standard reactivity at ambient conditions but acts as a highly catalyzed crosslinker at elevated temperatures. Baking temperature of 75°C or higher recommended. Especially for high-gloss spray coatings.
Desmodur® ultra N 3300	100	3,000	21.8	195	3.5	Outstanding weather stability and gloss retention, non-yellowing; for automotive OEM, automotive refinish, plastics and industrial coatings, structural coatings and topcoats.
Desmodur® ultra N 3390 BA/SN	90 in BA/SN	550	19.6	215	3.5	Special supply forms of **Desmodur® ultra N 3300** for automotive OEM, automotive refinish, plastics and industrial coatings, structural coatings and topcoats. Other supply forms also available.
Desmodur® ultra N 3380 BA/SN	80 in BA/SN	150	17.4	241	3.5	Special supply forms of **Desmodur® ultra N 3300** for automotive OEM, automotive refinish, plastics and industrial coatings, structural coatings and topcoats. Other supply forms also available.
Desmodur® ultra N 3368 BA/SN	68 in BA/SN	45	14.8	284	3.5	Special supply forms of **Desmodur® ultra N 3300** for automotive OEM, automotive refinish, plastics and industrial coatings, structural coatings and topcoats. Other supply forms also available.
Desmodur® ultra N 3600	100	1,200	23.0	185	3.2	Low-viscosity crosslinker for UV stable and good gloss retention for 2K PUR coatings (high solids/waterborne, e.g., in combination with **Bayhydur®** types) for automotive refinish, automotive OEM, construction, corrosion protection, wind energy and industrial applications; also for structural coatings and topcoats. Recommendable for aliphatic cast systems.
Desmodur® ultra N 3689 SN	89 in SN	325	20.3	207	3.2	Special supply form of **Desmodur® ultra N 3600.**
Desmodur® ultra N 3700 NEW	100	16,000	20.0	210	3.9	100% supply form based on **Desmodur® ultra N 3790 BA.** Previously known as **Desmodur® XP 2675.**
Desmodur® ultra N 3790 BA NEW	90 in BA	1,800	17.8	236	3.9	High functional crosslinker for fast-drying, weather-stable and non-yellowing 2K PUR coatings for automotive refinish, industrial applications, corrosion protection and wind energy.
Desmodur® N 3800	100	6,000	11.0	380	3.8	For highly elastic coatings with excellent weather resistance; combination with suitable polyisocyanates allows adjustments of the elasticity using the same polyol mill base. Especially suitable for plastic coatings, construction, corrosion protection and wind energy.
Desmodur® ultra N 3900 NEW	100	730	23.5	180	3.2	Low-viscosity crosslinker for UV stable and good gloss retention for 2K PUR coatings (high solids/waterborne, e.g., in combination with **Bayhydur®** types) for automotive refinish, automotive OEM, transportation and plastics finishing applications. Recommendable for aliphatic cast systems, construction, corrosion protection and wind energy.
Desmodur® ultra 2822	55 in BA/SN	15	12.0	350	3.5	Special supply forms of **Desmodur® ultra N 3300** for different applications. Other supply forms also available.

Blulogiq®
Smart for several applications.

From efficiency to low temp – without compromising appearance.

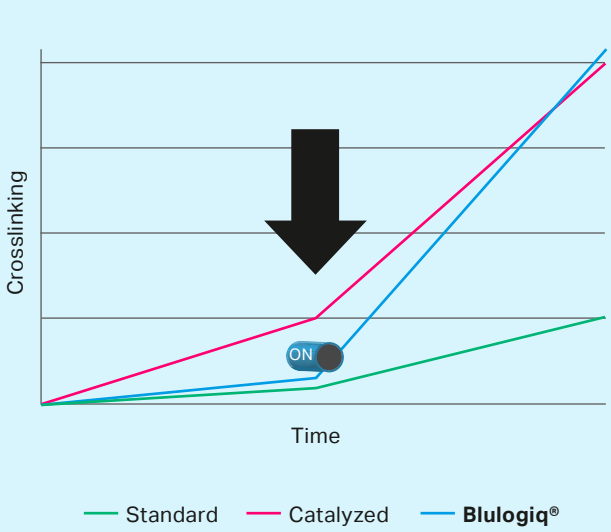
Blulogiq® technology:

The unique thermolatent hardener technology invented by Covestro adresses several needs, urgencies and unsolved problems of the coatings industry. **Blulogiq®** delivers the possibility to improve levelling by separating film formation from crosslinking, and brings in curing-on-demand properties into a 2K PU system.

Key benefits:

- Boosts process efficiency of OEM plastic and metal applications.
- Quite slow reaction during film formation – fast crosslinking at ≥ 75°C enables very good appearance.
- Crosslinking speed at 90°C is comparable to a 140°C noncatalyzed process.
- Improved early resistance properties enable better post-processing like: earlier & easier polishing, more robust handling, less damage during transport.
- Little formulation modification required for plastic-applications – just replace the hardener and conventional catalyst.

Thermolatency combined with proven high-performance 2K PU technology

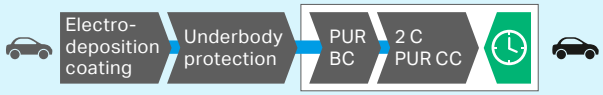


1

Exterior plastic coatings for hang-on parts:
Speed meets appearance

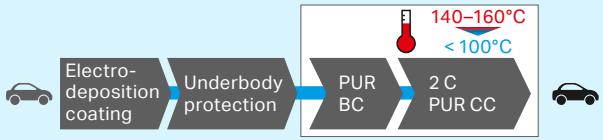
2

Auto OEM high-bake line coating:
Increase efficiency & de-bottleneck



3

Auto OEM low temp line coating:
Reduce temp after EDC to < 100°C



Desmodur® N family

HDI biuret

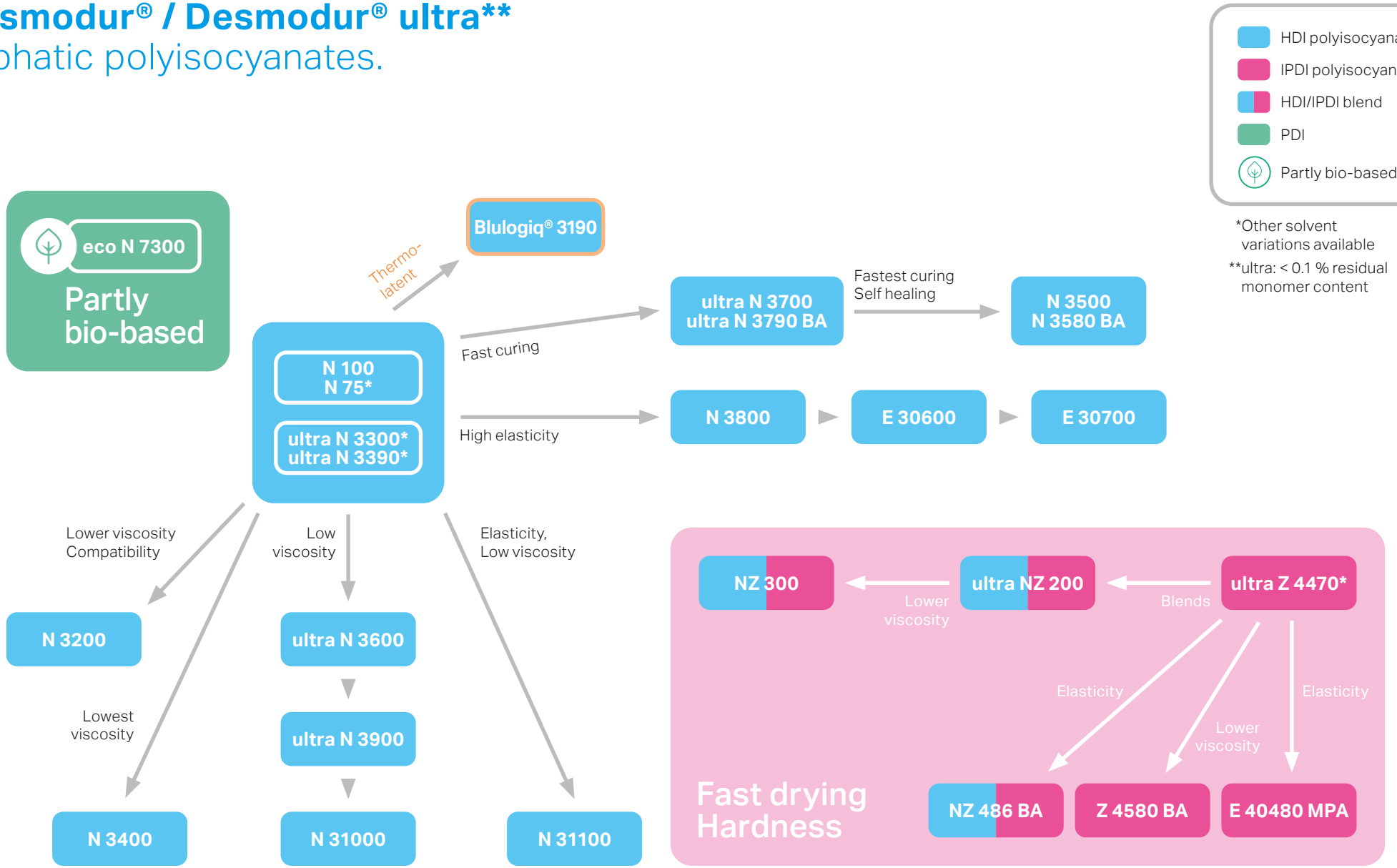
	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	COMMENTS
Desmodur® N 100	100	10,000	22.0	190	3.8	Weather-stable and non-yellowing topcoats. Very good compatibility with highly branched polyols.
Desmodur® N 3200	100	2,500	23.0	185	3.5	Lower viscosity than **Desmodur® N 100;** especially for weather-stable and non-yellowing high solids coatings, structural coatings and topcoats.
Desmodur® N 75 MPA/X	75 in MPA/X	250	16.5	255	3.8	Special supply forms of **Desmodur® N 100** for different applications. Other supply forms available.
Desmodur® N 75 MPA	75 in MPA	250	16.5	255	3.8	
Desmodur® N 75 BA	75 in BA	160	16.5	255	3.8	

Desmodur® N family

HDI specialties

		TYPE	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	COMMENTS
Desmodur® 2873	NEW	Silane modified polyisocyanate	100	450	12.3	341	2.0	Silane-modified crosslinker with excellent scratch resistance, high outdoor weathering resistance in waterborne and solventborne 2K PU coatings.
Desmodur® N 3400		Uretdione	100	150	21.8	195	2.5	Extremely low-viscosity crosslinker for waterborne and solventborne 2K PUR coatings; also for moisture-curing 1K PUR systems, for topcoats in many construction and corrosion protection applications.
Desmodur® N 3500	NEW	Allophanate / isocyanurate	100	35,000	19.5	215	> 5	High functional crosslinker for fast drying 2K PUR coatings with excellent scratch resistance in various automotive and industrial applications.
Desmodur® N 3580 BA	NEW	Allophanate / isocyanurate	80 in BA	500	15.4	273	> 5	High functional crosslinker, good weatherability, high gloss and improved resistance. Special supply form of **Desmodur® N 3500.**
Desmodur® N 31000		Uretdione/ isocyanurate	100	500	23.0	185	3.0	Low-viscosity crosslinker for waterborne and solventborne 2K PUR coatings; also for moisture-curing 1K PUR systems. Previously known as **Desmodur® XP 2840.**
Desmodur® N 31100		Allophanate	100	500	20.0	215	2.5	Flexible, low-viscosity crosslinker for weather-stable high solids and waterborne 2K PUR coatings (e.g., in combination with **Bayhydur®** or **Desmodur®** types), especially for industrial, automotive refinishing, transportation and plastic coatings. Recommendable for flexible aliphatic cast systems and construction coatings. Previously known as **Desmodur® XP 2860.**

Desmodur® / Desmodur® ultra**
Aliphatic polyisocyanates.



Desmodur® Z family

Fast-drying two-component polyurethane coatings with high chemical resistance.

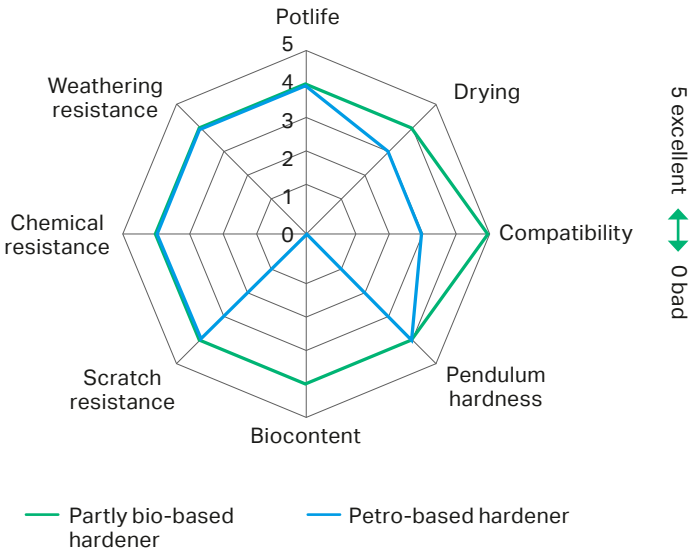
IPDI-based crosslinkers

	TYPE	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	COMMENTS
Desmodur® ultra NZ 200 NEW	HDI/IPDI isocyanurate	100	22,500	21.0	200	3.2	Good weatherability, gloss and improved resistance; especially for 100% solids applications, e.g., in-mould coating. Previously known as **Desmodur® XP 2489.**
Desmodur® NZ 300	HDI/IPDI isocyanurate	100	3,000	21.0	200	3.0	Crosslinker for lightfast 2K PUR systems; mainly used as a binder for 100% solids decorative floor coatings. Previously known as **Desmodur® XP 2838.**
Desmodur® NZ 486 BA	HDI/IPDI allophanate/ prepolymer	86 in BA	2,100	10.2	412	3.0	Crosslinker for weather-stable 2K PUR and polyaspartic coatings; longer pot life and extended application window, reduced dependency of humidity with polyaspartic coatings. Previously known as **Desmodur® XP 2763.**
Desmodur® ultra Z 4470 BA NEW	IPDI isocyanurate	70 in BA	600	11.9	360	3.5	Fast-drying hardeners for lightfast 2K PUR coatings with high chemical and weathering resistance. For automotive OEM, refinish and industrial applications. Due to its high hardness, **Desmodur® Z** is recommended to be combined with **Desmodur® N** products. Recommendable for corrosion protection and construction coatings.
Desmodur® ultra Z 4470 MPA/X NEW	IPDI isocyanurate	70 in MPA/X	1,500	11.9	360	3.5	
Desmodur® ultra Z 4470 SN NEW	IPDI isocyanurate	70 in SN	2,000	11.9	360	3.5	
Desmodur® Z 4580 BA	IPDI allophanate	80 in BA	2,800	12.0	350	2.5	Crosslinker for weather-stable, fast-drying high solids and waterborne 2K PUR coatings, e.g., in combination with **Bayhydur®** types, for automotive refinish and transportation applications. Previously known as **Desmodur® XP 2565.**

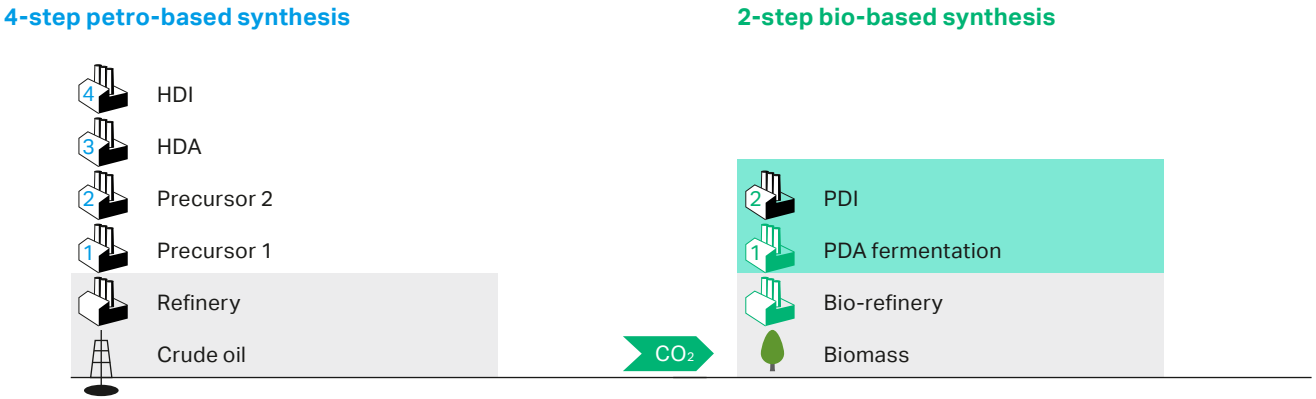
Desmodur® eco N family / Bayhydur® eco family

Partly bio-based polyurethane coatings with excellent weatherability and resistance based on bio-based **pentamethylene diisocyanate (PDI).**

Comparison of clearcoat film properties



- **Partly bio-based** and significantly **improved carbon footprint** cradle-to-gate in comparison to HDI, based on life-cycle-assessment studies conducted according to ISO 14040/14044 standards.
- By using partly **bio-based** raw materials, the consumption of fossil fuels is reduced.
- At the same time, the renewable **biomass** absorbs CO_2 from the environment.
- Further CO_2 savings through fewer process steps.
- For further information, please get in touch with your Covestro contact person.



Desmodur® / Bayhydur® eco family

Partly bio-based polyurethane coatings with excellent weatherability and resistance based on bio-based **pentamethylene diisocyanate (PDI).**

PDI-based crosslinker	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	BIO-BASED CONTENT ON SUPPLY FORM [%] APPROX.*	COMMENTS
Desmodur® eco BL 7175 NEW	75 in SN/MPA	8,500	10.9	385	3.7**	32	Thermally activated polyurethane hardener which contains renewable carbon for 1K PU stoving systems.
Desmodur® eco N 7300	100	9,500	21.5	195	3.7	71	Contains renewable carbon. Outstanding weather stability and gloss retention, non-yellowing; for automotive OEM, automotive refinish, plastics and industrial coatings, structural coatings and topcoats. Recommendable for corrosion protection and wind energy.
Bayhydur® eco 701-90	90 in PGDA	5,000	17.9	232	3.6	61	Ionically modified (sulfonic acid) crosslinker for highest chemical resistance, easy mixing and high gloss for 2K WB coatings containing renewable carbon.

* Based on results of ^{14}C/total C according to ASTM D 6866 ** Thermally activated polyurethane hardener

Bayhydur® family

The key to easy and reliable application of waterborne two-component polyurethane systems. **Bayhydur® ultra** qualities perform with < 0.1% monomer content.

Hydrophilic-modified polyurethane hardener

	TYPE	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	COMMENTS
Bayhydur® ultra 3100	HDI	100	2,800	17.4	240	3.1	Polyether-modified, standard. Versatile and economical.
Bayhydur® ultra 304	**HDI**	100	4,000	18.2	230	3.8	Polyether-modified, versatile use and improved mixing. Excellent water and weathering resistance.
Bayhydur® ultra 305	**HDI**	100	6,500	16.2	260	4.0	Polyether-modified, easiest mixing and high gloss.
Bayhydur® ultra 2700	HDI	65 in PGDME	75	10.6	400	4.0	Ready-to-use hardener based on **Bayhydur® ultra 305,** easiest mixing and high gloss.
Bayhydur® ultra 2487/1	HDI	100	5,400	20.6	205	3.4	Ionically modified (sulfonic acid), highest chemical resistance and very fast curing.
Bayhydur® 2547	**HDI**	100	650	22.5	185	3.0	Ionically modified (sulfonic acid), highest chemical resistance, low viscosity, suitable for 100% solids formulations and for pure water-based formulations.
Bayhydur® ultra 2655 NEW	**HDI**	100	3,500	20.8	205	3.2	Ionically modified (sulfonic acid), highest chemical resistance, easy mixing. Indoor-air-quality compliant and very fast curing.

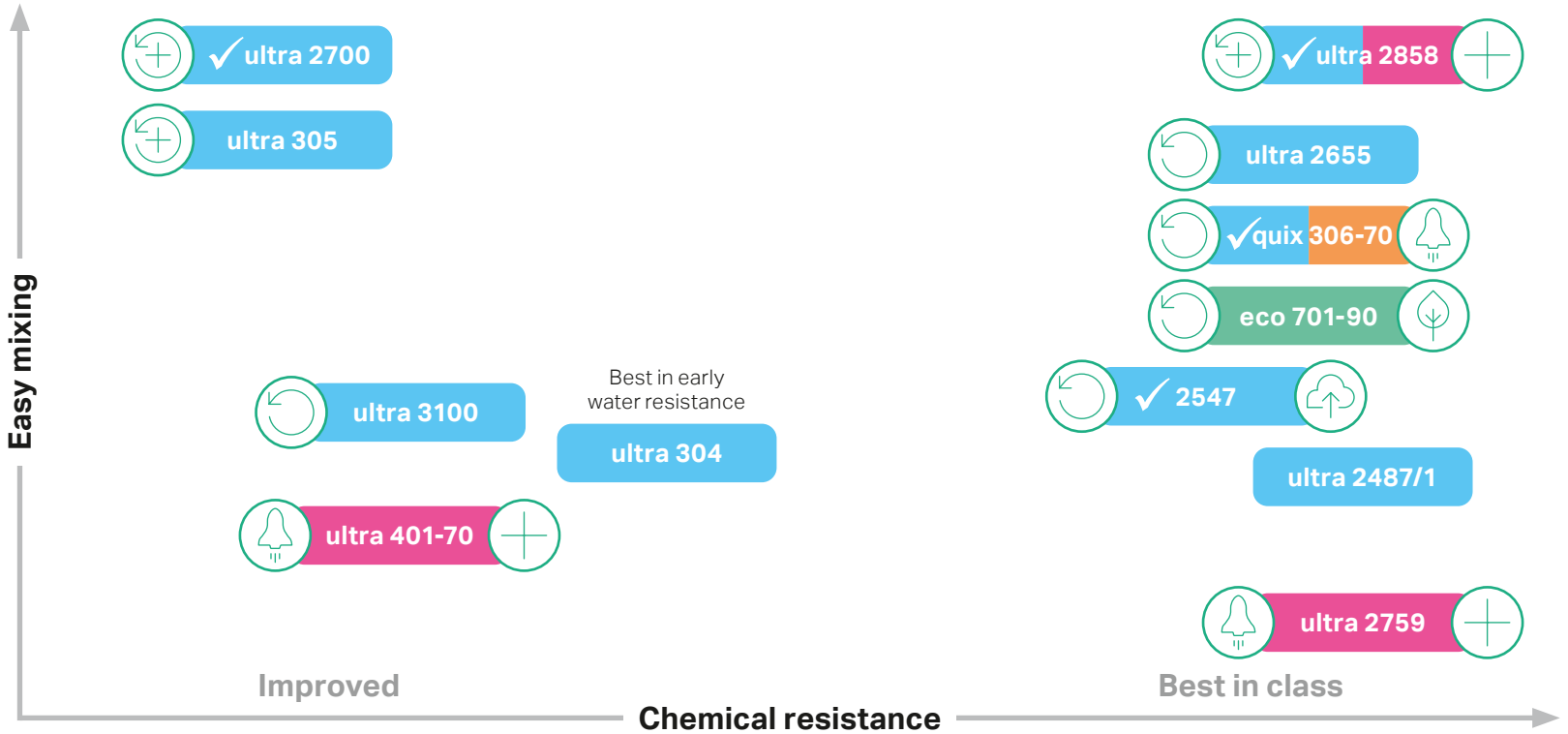
Bayhydur® family

The key to easy and reliable application of waterborne two-component polyurethane systems. **Bayhydur® ultra** qualities perform with < 0.1% monomer content.

Hydrophilic-modified polyurethane hardener

	TYPE	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	COMMENTS
Bayhydur® ultra 2858 NEW	HDI/IPDI	70 in PGDA	500	13.3	315	3.4	Ionically modified (sulfonic acid) ready-to-use hardener, fast drying, easy mixing, high hardness, high chemical resistance and long pot life.
Bayhydur® ultra 401-70 MPA NEW	IPDI	70 in MPA	1,500	9.4	440	2.9	Product contains no intentionally added aromatic solvents (BTX benzene / toluene / xylene).
Bayhydur® ultra 401-70 MPA/X NEW	IPDI	70 in MPA/X	600	9.4	440	2.9	Polyether-modified. Higher hardness, longer pot life and improved blister free film thickness compared to HDI based types.
Bayhydur® ultra 2759 NEW	IPDI	70 in MPA	6,000	11.0	380	3.1	Ionically modified (sulfonic acid), fast drying, easy mixing, high chemical resistance.
Bayhydur® quix 306-70	HDI/TDI	70 in MPA	250	13.5	311	3.3	Ionically modified (sulfonic acid), fastest drying and high chemical resistance, specially designed for wood coatings.

Bayhydur®/ Bayhydur® ultra*
Aliphatic, hydrophilic polyisocyanates.



- High gloss with manual stirring
- Low shear stirring
- Fast drying
- Longer potlife
- Partly bio-based
- Low viscous for neat zero VOC
- Ready to use

- HDI polyisocyanate
- IPDI polyisocyanate
- HDI/IPDI blend
- PDI
- HDI/TDI

*< 0.1 % residual monomer content

Desmodur® D family and hardeners for latent-reactive adhesives

Hydrophilic hardener for largely pH-neutral aqueous polymer dispersions in adhesive applications. **Desmodur® ultra** qualities perform with < 0.1% monomer content. Hardeners for formulations of latent-reactive waterborne adehsive layers or films.

Hydrophilic-modified polyurethane hardener

	TYPE	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	COMMENTS
Desmodur® ultra DA-L	HDI	100	3,000	20.0	210	Crosslinking agents for OH-functional dispersions, e.g., polyurethane, polyvinyl acetate, polyacrylate or synthetic rubber dispersions. Improved resistance to heat, water, plasticizers and many solvents.
Desmodur® ultra DN	HDI	100	1,250	21.8	195	

Hardeners for latent-reactive adhesives

	TYPE	SUPPLY FORM APPROX. [%]	T_g [°C]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	COMMENTS
Desmodur® Z 2589	IPDI	Micronized powder	65	17.0	250	After suitable deactivation, **Desmodur® Z 2589** can be used in combination with **Dispercoll® U** as a curing component for one-component latent-reactive polyurethane dispersion adhesives, to formulate latent-reactive adhesive layers or film.
Dispercoll® BL XP 2514	TDI	40 in water		9.0	465	**Dispercoll® BL XP 2514** can be used as the crosslinking component in combination with **Dispercoll® U** to formulate one-component, latent-reactive polyurethane dispersion adhesives.

Desmodur® BL family

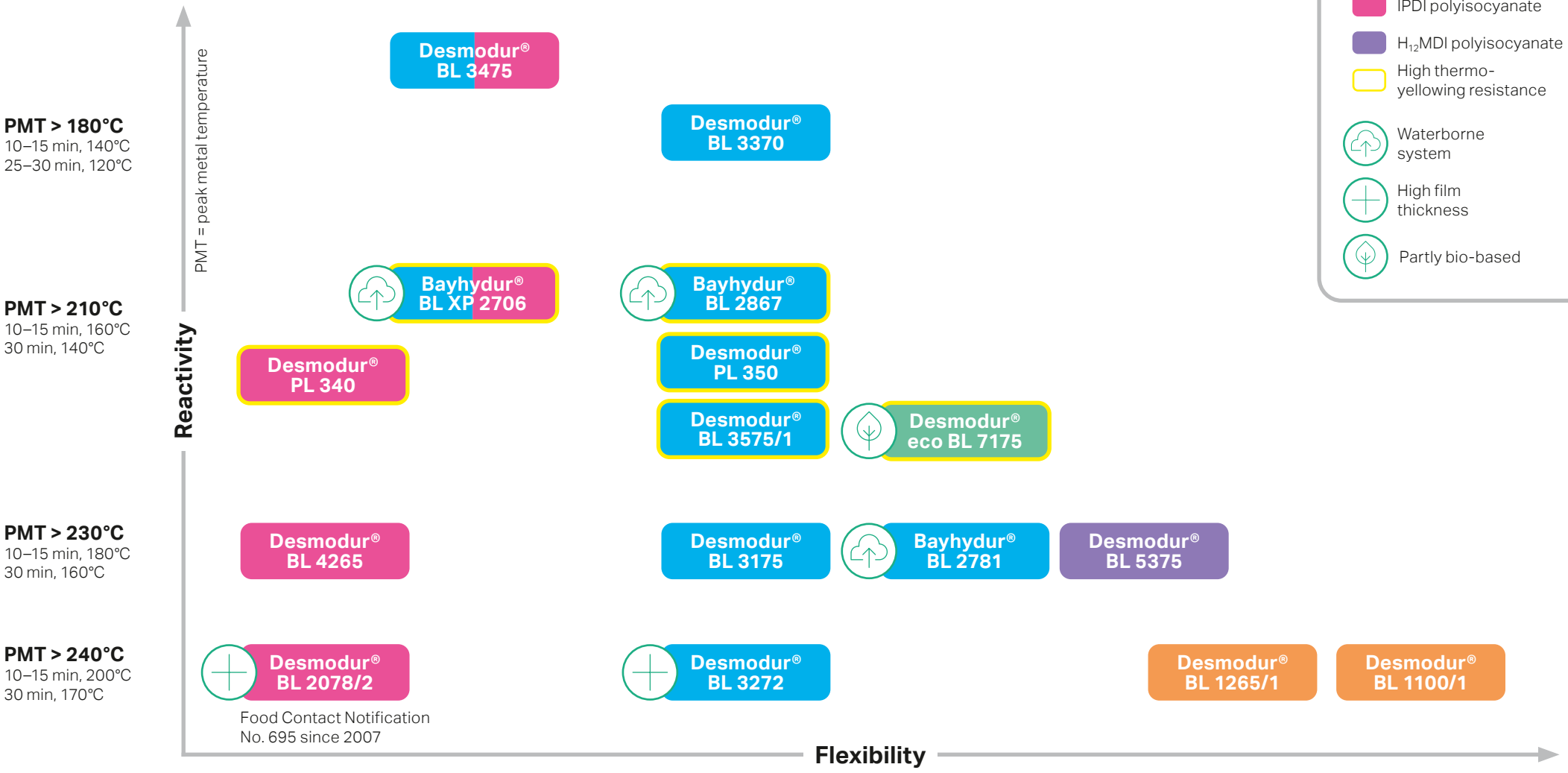
Solvent-borne grades for 1K PU stoving systems with high-performance properties. The aliphatic grades are light-stable and weather-resistant.

Thermally activated polyurethane hardener	TYPE	BLOCKING AGENT	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	EQUIVALENT WEIGHT APPROX.	CALCULATED BLOCKED NCO CONTENT ON SUPPLY FORM APPROX. [%]/ (ON RESIN [%])	COMMENTS
Desmodur® BL 3475	HDI/IPDI	DEM	75 in SN/BA	1,000	510	8.2/(10.9)	Highest reactivity, transesterification of blocking agent.
Desmodur® BL 3370	HDI	DEM/DIPA	70 in MPA	3,800	470	8.9/(12.7)	Highest reactivity.
Desmodur® PL 340	IPDI	DMP	60 in BA/SN	600	575	7.3/(12.2)	Excellent thermal yellowing resistance, high chemical resistance.
Desmodur® PL 350	HDI	DMP	75 in SN/MPA	4,300	400	10.5/(14.0)	Excellent thermal yellowing resistance, more flexible.
Desmodur® BL 3575/1	HDI	DMP	75 in SN/MPA	3,600	400	10.5/(14.0)	Excellent thermal yellowing resistance and lowest color value.
Desmodur® eco BL 7175 NEW	PDI	DMP	75 in SN/MPA	8,500	385	10.9 (14.5)	Contains renewable carbon. Outstanding weather stability and gloss retention, excellent thermal yellowing resistance.
Desmodur® BL 3175	HDI	MEKO	75 in SN	3,300	380	11.1/(14.8)	Standard grade, flexible.
Desmodur® BL 4265	IPDI	MEKO	65 in SN	11,000	520	8.1/(12.5)	Standard grade, high chemical resistance, high hardness.
Desmodur® BL 5375	H_{12}MDI	MEKO	75 in SN/MPA	4,000	470	8.9/(11.9)	Extremely flexible, as additive for stoving systems to improve flexibility and adhesion.
Desmodur® BL 2078/2	IPDI	Ɛ-CAP	60 in SN	1,750	600	7.0/(11.7)	High chemical resistance and hardness, realization of high film thickness possible, excellent thermal yellowing resistance; classified according Food Contact Notification, FCN No. 695.
Desmodur® BL 3272	HDI	Ɛ-CAP	72 in MPA	2,700	410	10.2/(14.2)	Flexible, realization of high film thickness possible, excellent thermal yellowing resistance.
Desmodur® BL 1100/1	TDI	Ɛ-CAP	100	43,000	1,400	3.0/(3.0)	1K stoving primer with good stone-chip resistance, high film thickness possible; in combination with cycloaliphatic diamines intended for coil coating primer.
Desmodur® BL 1265/1	TDI	Ɛ-CAP	65 in MPA/X	20,000	875	4.8/(7.4)	Hard elastic, intended for primer with good stone-chip resistance, in combination with **Desmodur® BL 1100/1** for coil coating primer to improve hardness and cold-resistance.

* See page 6

Desmodur® eco / Desmodur® BL (Solventborne) / Bayhydur® BL (Waterborne)

Thermally activated PU hardeners.



Bayhydur® BL and Baybond® XL family

Waterborne grades for water-based 1K PU stoving systems with high-performance polyurethane properties. The aliphatic grades are light-stable and weather-resistant.

Thermally activated polyurethane hardener

	TYPE	BLOCKING AGENT	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	EQUIVALENT WEIGHT APPROX.	CALCULATED BLOCKED NCO CONTENT ON SUPPLY FORM APPROX. [%]/(ON RESIN [%])	COMMENTS
Bayhydur® BL XP 2706	HDI/IPDI	DMP	40 in water	< 2,500	1,275	3.3/(8.2)	High reactive, good chemical resistance, lowest thermal yellowing, neutralized with DMEA.
Bayhydur® BL 2867	HDI	DMP	38 in water	< 1,500	960	4.4/(11.5)	High reactive, good chemical resistance, lowest thermal yellowing, high flexibility and outstanding adhesion.
Bayhydur® BL 2781	HDI	MEKO	37 in water	4,900	1,200	3.5/(9.5)	High flexibility, good adhesion. Neutralized with DMEA.
Baybond® XL 6366	HDI	MEKO	45 in water	< 200	975	5.6/(12.5)	High solid content, high flexibility. Deblocking temperature approx.150°C.
Baybond® XL 1187	HDI	MEKO	30 in water	< 200	1,450	2.9/(9.8)	High particle size, flexible and non ionic character. Deblocking temperature approx. 150°C.
Baybond® XL 825	HDI	Ɛ-CAP	30 in water	< 200	1,400	3.0/(10.0)	Low thermal yellowing, improved impact strength, adhesion and flexibility. Deblocking temperature approx. 170°C.
Baybond® XL 7270	HDI	Ɛ-CAP	30 in water	< 100	1,000	3.9/(13.1)	Low thermal yellowing, improved impact strength, adhesion and flexibility. Deblocking temperature approx. 170°C. **Food contact acc. to EU 10/2011.***
Baybond® XL 3674	HDI	Ɛ-CAP	30 in water	< 200	1,310	3.2/(10.7)	Improved impact strength, adhesion and flexibility. Deblocking temperature approx. 170°C . **Food contact acc. to EU 10/2011.***

Waterborne carbodiimide crosslinker

	TYPE	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	FUNCTIONAL GROUPS APPROX.	EQUIVALENT WEIGHT APPROX.	COMMENTS
Desmodur® 2802	Carbodiimide	40 in water	100	1 mmol – N = C = N – /g	210	Polycarbodiimide crosslinker can be used in combination with carboxyl groups containing dispersion polymers (PUD, PAC dispersions) to formulate waterborne reactive systems with very long pot life. It has the advantage of having a very low enviromental impact.

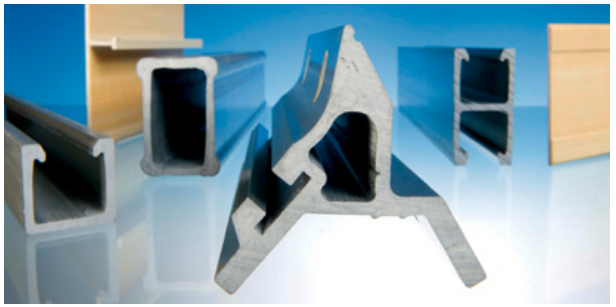
* See page 6

Bayhytherm® / Desmotherm®

Self-crosslinking urethane resin	TYPE	BLOCKING AGENT	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	COMMENTS
Bayhytherm® 3246/1 NEW	HDI	DMP	44 in water/PnB/SN	800	Well balanced hardness-flexibility profile, low thermal yellowing, high gloss. Suitable for additional melamine crosslinking. For OEM primer surfacers, also general industrial coatings.
Desmotherm® 2170	MDI	DEM	70 in BA/SN/IB	2,000	For solvent-borne 1K PUR stoving coatings (primer and primer surfacer).

Crelan® family

Solid blocked polyisocyanate crosslinkers for polyurethane powder coatings with high chemical resistance and smooth surfaces.



Powder hardeners

	TYPE	SUPPLY FORM [%]	T_g APPROX. [°C]	EQUIVALENT WEIGHT APPROX.	STANDARD BAKING CYCLE	COMMENTS
Crelan® EF 403	Internally blocked linear IPDI polyisocyanate	Flakes	40–55	310	15 min at 180°C	For emission-free powder coatings with outstanding leveling and pigment wetting and for special one-shot matte coatings.
Crelan® NI-2	Blocked linear IPDI polyisocyanate	Prills	55–60	280	15 min at 180°C	For economical standard powder coatings with good leveling, good pigment wetting and good corrosion resistance.
Crelan® NW-5	Blocked linear H_{12}MDI polyisocyanate	Prills	48–58	335	15 min at 175°C	For higher reactive powder coatings with excellent flexibility and corrosion resistance properties.
Crelan® UI	Blocked linear IPDI polyisocyanate	Flakes	> 60	365	15 min at 180°C	For powder coating with good leveling and good pigment wetting or to improve coating properties of hybrid systems.
Crelan® VP LS 2256	Blocked linear IPDI polyisocyanate	Flakes	48–58	280	15 min at 180°C	For high chemical resistance powder coatings with easy-to-clean properties and standard powder coatings with good overall properties.

Desmocap®

Blocked aromatic urethane resins for flexibilization of epoxy systems.

Blocked TDI prepolymers	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	COMMENTS
Desmocap® 14 CNB	100	25,000	For elastic coatings and sealants; for flexibilization of epoxy resins. Target applications: industrial flooring, parking decks, corrosion protection, adhesives for floor coverings. Cashew nut shell liquid as blocking agent.

Desmodur® R family

Hardeners for reactive, high-performance 2K PUR industrial adhesives.

Desmodur® R: color of the dried adhesive film

	TYPE	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	COMMENTS
Desmodur® RC	TDI isocyanurate	35 in EA	3	7.0	600	Especially pale-colored adhesives.
Desmodur® RFE	Tris (p-isocyanatophenyl) thiophosphate	27 in EA	3	7.2	583	Crosslinker with very universal suitability for adhesives based on **Desmocoll®,** natural or synthetic rubber. Suitable as primer on glass substrates.
Desmodur® ultra RN	TDI/HDI isocyanurate	40 in EA	11	7.2	585	Especially pale-colored adhesives. Lower discoloration.

Desmodur® L family

Aromatic crosslinker for coatings and adhesives.
Desmodur® ultra qualities perform with < 0.1% monomer content.

TDI-based crosslinkers

	TYPE	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	GEL TIME WITH DESMOPHEN® 1300 X APPROX. [h]	DRYING STAGE 3 WITH DESMOPHEN® 1300 X DIN EN ISO 9117/5 APPROX. [MIN]	COMMENTS
Desmodur® L 67 BA	Adduct	67 in BA	600	11.9	350	2.7	17.0	180	Crosslinker for use in corrosion protection coatings, industrial coatings, wood and furniture finishes, concrete coatings as well as solvent-borne adhesives.
Desmodur® L 67 MPA/X	Adduct	67 in MPA/X	1,600	11.9	350	2.7	13.0	255	
Desmodur® L 75	Adduct	75 in EA	1,600	13.3	315	2.7	9.5	240	
Desmodur® ultra L 75	Adduct	75 in EA	1,600	13.3	315	2.7	9.5	240	Ultra-low monomer grade of **Desmodur® L 75.**
Desmodur® ultra IL BA	Isocyanurate	51 in BA	2,000	8.0	525	4.5	2.0	6	Very hard and very fast-drying coatings for wood, furniture and paper.
Desmodur® ultra IL EA	Isocyanurate	51 in EA	700	8.0	525	4.5	3.5	5	
Desmodur® ultra IL 1351 BA	Isocyanurate	51 in BA	1,300	8.0	525	4.5	2.5	6	
Desmodur® IL 1451 BA	Isocyanurate	51 in BA	250	7.4	565	4.8	3.0	8	See **Desmodur® ultra IL 1351 BA** but with improved compatibility.

TDI-/HDI-based crosslinkers

Desmodur® HL BA	Isocyanurate	60 in BA	2,200	10.5	400	4.4	3.0	12	Fast-drying coatings for wood, furniture, metal, plastic and paper with better elasticity than **Desmodur® IL** and better lightfastness.
Desmodur® HL EA	Isocyanurate	60 in EA	1,100	10.5	400	4.4	4.0	10	

These products represent only a selection of the TDI-based products primarily used in coating applications.
Additional TDI-based products can be found, for example, on the Covestro CAS website: www.coatings.covestro.com

Desmodur® monomers

Covestro is the leading company that offers you the complete range of aliphatic and aromatic monomeric diisocyanates (monomers) as well as oligomeric isocyanates (polyisocyanates) and NCO-functional prepolymers. Especially the monomers are widely used as building blocks:

- to create a diverse portfolio of polyurethane dispersions (PUDs),
- to modify acrylic/alkyd polymer to improve properties such as faster drying or better UV stability,
- to create urethane acrylates or use them for other urethanizations,
- to create a diverse portfolio of thermoplastic polyurethanes (TPU) with different characteristics,
- to create a diverse portfolio of low and high T_g-cast polyurethanes (CPU) with different characteristics for industrial CPUs, electrical encapsulation, label doming etc.

Aliphatic diisocyanates	TYPE	VISCOSITY AT 23°C APPROX. [mPa · s]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY	COLOR INDEX [HAZEN]	COMMENTS
Desmodur® H	HDI	3	84	2	≤ 30	Raw material for **Desmodur® N family,** building block.
Desmodur® I	IPDI	10	111	2	≤ 30	Raw material for **Desmodur® Z family,** building block.
Desmodur® W	H_{12} MDI	30	131	2	≤ 30	Building block.

Desmodur® monomers

For coatings and adhesives.

Monomeric TDI products

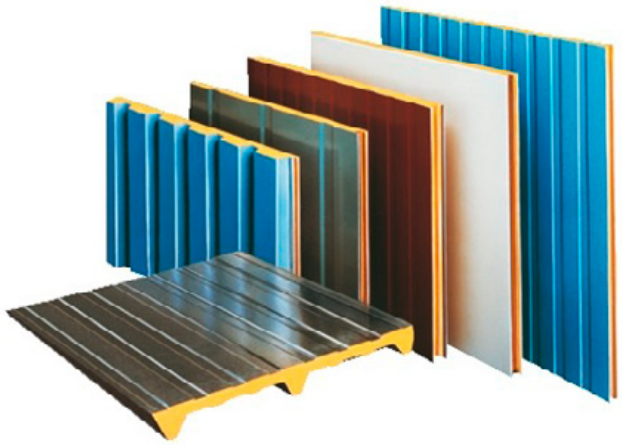
	NCO CONTENT APPROX. [%]	2,4-TDI CONTENT APPROX. [%]	VISCOSITY AT 25°C APPROX. [mPa · s]	FUNCTIONALITY	EQUIVALENT WEIGHT	HC MAX./ACIDITY MAX. [mg/kg Cl^-]/[mg/kg HCL]	COMMENTS
Desmodur® T 65 N	48	67.0	3	2	87	100/40	
Desmodur® T 80	48	80.5	3	2	87	100/40	Stabilizer: **Irganox® 1076 FD.**
Desmodur® T 100	48	≥ 99.0	3	2	87	20/20	Stabilizer: **Irganox® 1076 FD.**
Desmodur® T 100 SP	48	≥ 99.0	3	2	87	50/50	Stabilizer: **Irganox® 1076 FD,** for prepolymers with improved storage stability.

Monomeric MDI products

	NCO CONTENT APPROX. [%]	VISCOSITY AT 25°C APPROX. [mPa · s]	FUNCTIONALITY APPROX.	EQUIVALENT WEIGHT	COMMENTS
Desmodur® 44 M liquid	33.6	4 (40°C)	2.0	125	Flexible packaging, hot melts, sealants; additional supply forms: fused and flakes.
Desmodur® 44 MC liquid	33.6	4 (40°C)	2.0	125	Hot melts, sealants, prepolymers with improved storage and color stability; additional supply forms: fused and flakes.
Desmodur® LS 2424	33.6	12	2.0	125	Flexible packaging, hot melts, approx. 55% 2,4'-MDI/45% 4,4'-MDI.
Desmodur® 2460 M	33.6	12	2.0	125	Flexible packaging, hot melts, approx. 55% 2,4'-MDI/45% 4,4'-MDI color stabilized.
Desmodur® CD-S	29.5	35	2.1	142	Hot melts, sealants, modified monomeric MDI, liquid at room temperature, storage-stable at low temperatures.

Desmodur® polymeric MDI products (pMDI)

Aromatic crosslinker for coatings and adhesives.



For adhesives

	VISCOSITY AT 25°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	GEL TIME WITH CASTOR OIL APPROX. [min]	COMMENTS
Desmodur® VK 5	23	32.5	130	2.2	60	Building block for prepolymers, high 2,4'-MDI content, good compatibility with polyethers.
Desmodur® VK 10	90	31.5	135	2.6	40	1K and 2K adhesives, high 2,4'-MDI content, low pMDI content, good compatibility with polyethers.
Desmodur® VK 10 L	90	31.5	135	2.6	50	1K and 2K adhesives, high 2,4'-MDI content, low pMDI content good compatibility with polyethers, lower reactivity than **Desmodur® VK 10.**
Desmodur® VL R 10	120	31.5	135	2.8	45	Standard 2K adhesives, low viscosity.
Desmodur® VKS 20	200	31.5	135	2.9	45	Standard 2K adhesives, low acidity.
Desmodur® VKS 20 F	200	31.5	135	2.9	40	Standard 2K adhesives, high acidity.
Desmodur® 44V40 L	400	31.0	135	3.0	50	Standard 2K adhesives, high functionality.
Desmodur® 44V70 L	680	31.3	135	3.2	50	Standard 2K adhesives, highest functionality.

Desmodur® polymeric MDI products (pMDI)

Aromatic crosslinker for coatings and adhesives.

For coatings and membranes

	VISCOSITY AT 25°C APPROX. [mPa · s]	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	GEL TIME WITH CASTOR OIL APPROX. [min]	COMMENTS
Desmodur® VL 50	23	32.5	130	2.2	60	Very low viscosity; same applications as **Desmodur® VL** but better compatibility with polyethers and lower reactivity; more flexible.
Desmodur® VL 51	21	32.5	130	2.2	50	Very low viscosity; same applications as **Desmodur® VL** but better compatibility with polyethers and lower reactivity; more flexible.
Desmodur® VP.PU 60RE11	21	32.5	130	2.2	45	Very low viscosity; high 2-ring content.
Desmodur® XP 2551	66	32.0	130	2.5	50	Crosslinker primarily for polyol emulsions.
Desmodur® VL	90	31.5	135	2.6	40	Crosslinker for 100% solids coatings, sealants and membranes.
Desmodur® VL R 10	120	31.5	135	2.8	45	Higher reactivity than **Desmodur® VL;** for 100% solids spray coatings and membranes.
Desmodur® VL R 20	200	31.5	135	2.9	45	Lower reactivity than **Desmodur® VL;** for 100% solids spray coatings and membranes.
Desmodur® VKS 20 F	200	31.5	135	2.9	40	Higher reactivity than **Desmodur® VL R 20;** for 100% solids coatings and membranes.

Desmodur® aliphatic prepolymers

Prepolymers based on aliphatic diisocyanates display good weather stability and are color-stable. These unique properties are important for applications such as corrosion protection or non-yellowing coatings and adhesives. **Desmodur® ultra** qualities perform with < 0.1% monomer content.

Prepolymers based on HDI

	NCO CONTENT ON SUPPLY-FORM APPROX. [%]	MONOMER CONTENT [%]	EQUIVALENT WEIGHT APPROX.	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	FUNCTIONALITY APPROX.	DRYING TIME (MOISTURE CURING SYSTEM) 23°C/50% r.h. APPROX. [min]	COMMENTS
Desmodur® ultra E 30500 NEW	12.5	< 0.1	335	100	4,250	2.0	2,400	1K bonding of rubber pellets, 2K adhesives. Previously known as **Desmodur® XP 2617**.
Desmodur® E 30700	11.0	< 0.3	380	100	1,350	2.2	N/A	Highly elastic prepolymer for waterproofing membranes, floor coatings, suitable combination with aspartic esters. Recommendable for corrosion protection and winde blade coatings. Previously known as **Desmodur®E 2863 XP**.
Desmodur® ultra E 3370	9.8	≤ 0.1	420	70 in MPA/SN	1,400	4.0	4,900	Corrosion protection coatings, good weather stability, non-yellowing, 1K application.
Desmodur® E 30600	6.0	≤ 0.3	700	100	2,500	4.0	3,500	2K coatings and 2K adhesives. Previously known as **Desmodur® XP 2599.**
Desmodur® E 3265 MPA/SN	10.4	≤ 0.26	405	65 in MPA/SN	1,200	4.2	3,100	Corrosion protection coatings, good weather stability, non-yellowing, 1K application.

Prepolymers based on IPDI

Desmodur® VP LS 2371	3.7	< 2.0	1,100	100	9,800	2.0	11,500	1K construction coatings, 1K sealants.
Desmodur® E 40480 MPA	2.8	< 0.5	1,500	80 in MPA	7,000	2.0	> 5,800	Elastic coatings and sealants with very good weather stability. Previously known as **Desmodur® XP 2406.**

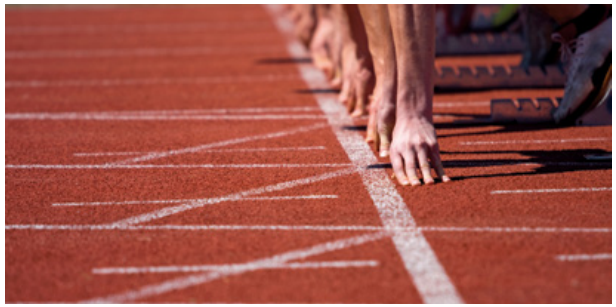
Desmodur® aromatic prepolymers

Prepolymers are NCO-functional reaction products of aromatic or aliphatic isocyanates and polyols, such as polyethers or polyesters. The wide variability of the isocyanate content and functionality enables the viscosity of the prepolymers and the mechanical properties of the finished products to be precisely adjusted.

Prepolymers based on TDI	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	FUNCTIONALITY APPROX.	MONOMER CONTENT [%]	DRYING TIME (MOISTURE CURING SYSTEM) 23°C/50% r.h. APPROX. [min]	COMMENTS
Desmodur® E 1361 MPA/X	6.8	620	61 in MPA/X	500	2.8	≤ 0.4	120	Fast-drying 1K moisture-curing coatings. Recommendable for corrosion protection.
Desmodur® E 1361 BA	6.8	620	61 in BA	250	2.8	< 0.5	90	Fast-drying 1K moisture-curing coatings. Recommendable for corrosion protection.
Desmodur® E 1160 MPA/X	5.4	780	60 in MPA/X	550	3.0	≤ 0.4	740	1K moisture-curing coatings.
Desmodur® E 1660	5.3	790	60 in BA	1,600	2.0	< 0.5	25	Very fast-drying 1K moisture-curing coatings in combination with other **Desmodur® E** types.
Desmodur® E 15	4.4	955	100	7,000	2.0	< 0.5	2,800	Recommendable for 2K elastic park deck coatings, 1K sealants and corrosion protection.
Desmodur® E XP 2605/1	4.3	975	50 in BA	250	3.7	≤ 0.4 TDI < 1.0 MDI	25	Very fast drying, for parquet and furniture.
Desmodur® E 14	3.3	1,270	100	6,800	2.5	< 0.5	1,400	Recommendable for 2K elastic park deck coatings, 1K sealants, flexibilization of anti-corrosion systems and corrosion protection.

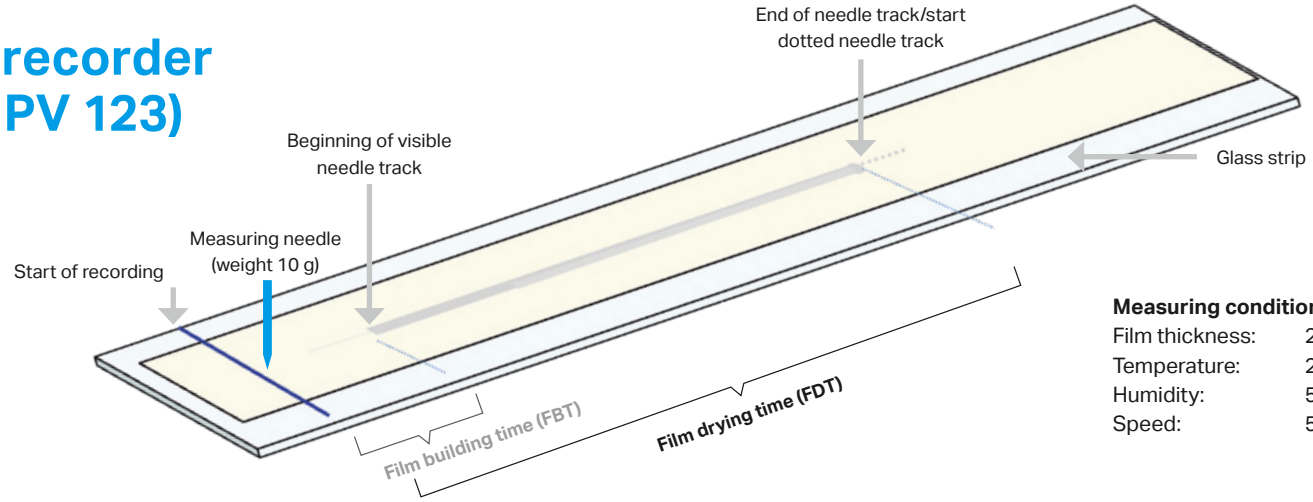
Desmodur® and Desmoseal® M

Prepolymers are the reaction products of aromatic or aliphatic isocyanates and polyols, such as polyethers or polyesters. The wide variability of the building blocks, isocyanate content and functionality enables the viscosity of the prepolymers and the mechanical properties of the final products to be precisely adjusted.



Prepolymers based on MDI	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	VISCOSITY AT 23°C (* 25°C) APPROX. [mPa · s]	FUNCTIONALITY APPROX.	DRYING TIME (MOISTURE CURING SYSTEM) 23°C/50% r.h. APPROX. [min]	COMMENTS
Desmodur® VH 20 N	24.5	173	280*	2.1	770	Sports floors, storage-stable at low temperatures.
Desmodur® E 29	24.0	175	220*	2.2	140	1K primer for flooring applications, binder for corrosion protection.
Desmodur® 2665A	16.3	255	4,500*	2.7	65	1K wood bonding (D4) – higher reactivity compared to E 21, 2K adhesives.
Desmodur® E 21	16.0	260	5,400*	2.8	110	1K wood bonding (D4), 2K adhesives, binder for corrosion protection.
Desmodur® E 2190 X	14.3	295	1,100*	2.8	115	90% supply form of **Desmodur® E 21** in xylene.
Desmodur® E 20100	15.7	265	1,100	2.0	180	1K resin for sealing of water-conveying cracks in structures above and below ground, raw material for injection systems.
Desmodur® E XP 2723	15.4	270	1,500*	2.3	480	1K assembling adhesives, 2K adhesives.
Desmodur® E 23	15.4	270	1,800	2.1	130	1K wood bonding (D4), 2K flexible packaging adhesives, binder for corrosion protection.
Desmodur® E XP 2727	15.3	275	800	2.0	640	For one and two-component polyurethane and polyurea coatings, adhesives and sealants.
Desmodur® E XP 2715	15.1	280	950 (70°C)	2.0	–	Precursor for low monomer 1K PUR hot melts.
Desmodur® E XP 2762	14.3	295	4,500	2.1	15	1K wood bonding (D4) – higher reactivity compared to E 23, 2K adhesives.
Desmodur® E 2200/76	9.9	425	2,750*	2.0	1,100	Flexible packaging.
Desmodur® E 22	8.6	490	2,800	2.0	190	1K bonding of rubber pellets, 2K adhesives.
Desmoseal® M 280	2.1	2,000	33,000	2.7	200	1K sealants, 1K elastic adhesives.

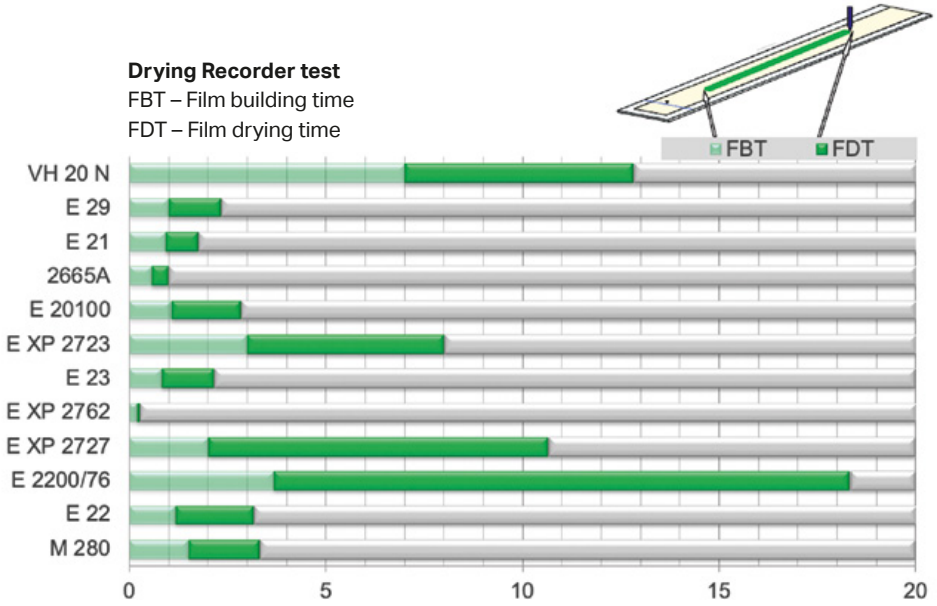
BK 10 drying recorder (test method PV 123)



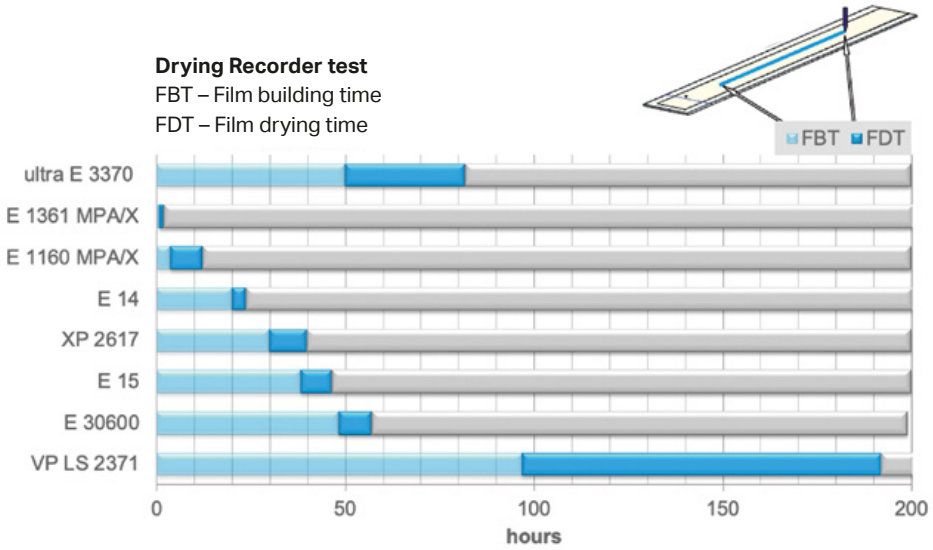
Measuring conditions:

Film thickness:	250 µm
Temperature:	23°C
Humidity:	50%
Speed:	5.1 cm/h

NCO prepolymers for reactive adhesives reactivity of MDI based prepolymers



NCO prepolymers for reactive adhesives reactivity of low-monomer prepolymers



Desmoseal® S family

Silane-terminated polyurethanes (STP) combine the advantages of a polyurethane backbone and silane-based curing mechanism, such as excellent cohesive strength and good adhesion properties. They cover the complete application range from low modulus sealants up to structural adhesives.

Silane-terminated polyurethanes	SUPPLY FORM APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	MOLECULAR WEIGHT	COMMENTS
Desmoseal® S XP 2774	100	50,000	Very high	For low modulus sealants with very high elongation. Starting formulation available which has been classified according to ISO 11600-F-25 LM (ift Rosenheim).
Desmoseal® S XP 2636	100	40,000	High	For low modulus sealants and elastic adhesives with high elongation.
Desmoseal® S XP 2458	90 in Mesamoll	35,000	Medium	For elastic adhesives and high-modulus sealants with medium elongation.
Desmoseal® S 2876	100	25,000	Medium	For elastic adhesives and high-modulus sealants with medium elongation.
Desmoseal® S XP 2749	100	5,100	Low	For adhesives with high hardness without added plasticizer.
Desmoseal® S XP 2821	100	20,000	Low	For structural adhesives with high tensile strength and lap shear strength without added plasticizer.

Legend

Solvents

BA	Butyl acetate
SN	Solvent naphtha
MPA	Methoxypropyl acetate
X	Xylene
EA	Ethyl acetate
PGDME	Dipropylene glycol dimethyl ether
PGDA	Propylene glycol diacetate
IB	Isobutanol

Isocyanates

HDI	Hexamethylene diisocyanate
IPDI	Isophorone diisocyanate
PDI	Pentamethylene diisocyanate
H_{12} MDI	Dicyclohexylmethane diisocyanate
TDI	Toluene diisocyanate
MDI	Diphenylmethane diisocyanate

Blocking agents

DEM	Diethylmalonate
DIPA	Diisopropylamine
DMP	Dimethylpyrazole
MEKO	Methylethylketoxime
Ɛ-CAP	Ɛ-Caprolactam

Other abbreviations

T_g	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_2-based materials that do not sacrifice high performance.

Join us to shape the future!

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

coatings.covestro.com
cas-info@covestro.com

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