



Dispersions

Bayhydrol® Bayhydur® Baybond®
Bayhytherm® Desmodur®
Impranil® Impraperm® Dispercoll®





Bayhydrol® Bayhydur® Baybond® Bayhytherm® Desmodur® Impranal® Impraperm® Dispercoll®

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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.



Aqueous dispersions – an innovative and eco-friendly platform.

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, 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.

High-performance waterborne portfolio

As one of the leading producers of coating and adhesive raw materials, we offer a comprehensive range of high-grade raw materials for polyurethane coatings and adhesives. The demand for sustainable technology is steadily growing and has greatly accelerated the shift away from solvent-borne coatings and adhesives to 100% solids and waterborne systems. With our ecological technology platform we offer a wide variety of aqueous dispersions for the coatings and adhesives market. Our mission is to provide competitive advantages for our customers: eco-friendly products with superior quality and performance to enable highly efficient coating and bonding processes. We are continuously developing innovative dispersions to complement our range of waterborne products based on a variety of chemistries – polyurethane, polyacrylate and polyester



dispersions. Depending on your requirements and cost-performance demands, we can offer the most attractive formulation option based on a 1K or 2K system.

Main application areas

The most important areas of application for our waterborne coating raw materials are wood and furniture coatings, metal and plastic coatings for industrial applications, high-grade floor coatings, automotive OEMs, transportation vehicles and refinishing coatings and textile coatings. Moreover, we offer specialty products for fiber sizings and applications in the paper and printing ink industries.

As a fast-growing and highly promising segment for waterborne coatings technology, UV-curing polyurethane dispersions combine fast curing with excellent coating properties. Firmly established in wood coatings and growing in plastics coatings, we are continuously extending our range to include additional applications.

Our waterborne adhesive raw materials are first choice in heat-activated bonding applications from 3-D film lamination in the furniture industry and heat lamination for car interior trims to bonding footwear. Besides the classical foam bonding market, more and more applications are now emerging for our waterborne contact adhesives.

Please check out our waterborne product lines: **Bayhydrol**® and **Bayhytherm**® for coating applications, **Dispercoll**® for adhesives applications, **Impranil**® for textile applications and **Baybond**® for fiber sizings. In combination with our polyisocyanate crosslinkers **Desmodur**® and **Bayhydur**® we offer superior system solutions for 2K or 1K stoving applications.



Bayhydrol® A

Building blocks for high performance & near to zero VOC water-based coatings.



Primary acrylic polyol dispersions for waterborne 1K and 2K PUR & 1K PUR stoving systems	NON-VOLATILE CONTENT APPROX. [%]	NEUTRALIZATION AGENT	OH CONTENT APPROX. [%] ON SOLIDS	T _g APPROX. [°C]	MFFT APPROX. [°C]	COMMENTS
	Bayhydrol® A 2846	40	NH ₃	1.5	65	
Bayhydrol® A 2427	42	NH ₃	2.0	88	> 80	In 1K as well as in 2K formulations, fast drying, good adhesion to plastics.
Bayhydrol® A 2457	41	NH ₃	2.5	56	26	Good chemical resistance, outstanding water resistance.
Bayhydrol® A 242	42	NH ₃	4.0	29	< 0	Good chemical resistance.
Bayhydrol® A 2546	41	NH ₃	4.8	64	18	Outstanding chemical and water resistance, suitable for construction applications and fast sanding sealers.

PES- or PC-modified secondary acrylic polyol dispersions for waterborne 2K PUR & 1K PUR stoving systems	NON-VOLATILE CONTENT APPROX. [%]	NEUTRALIZATION AGENT	CO-SOLVENT CONTENT [%] IN SUPPLY FORM	OH CONTENT APPROX. [%] ON SOLIDS	T _g APPROX. [°C]	COMMENTS
	Bayhydrol® A 2861	53	DMEA	PnB 1.2	3.5	
Bayhydrol® A 2139/2	47	DMEA	BDG 2.5	3.8	14	Fatty acid-modified polyacrylic, high gloss as primer and topcoat for metal and plastic substrates.
Bayhydrol® A 2227/1	42	DMEA	BG 7.0	3.8	29	Polyester modified. For topcoats and primers with low co-solvent content (< 5%) and very good overbaking resistance.
Bayhydrol® A 2058	42	DMEA	BG 2.0	4.8	-2	Polyester modified. Elastic, good adhesion to plastics, low VOC content.

Bayhydrol® A

Building blocks for high performance & low to zero VOC water-based coatings.

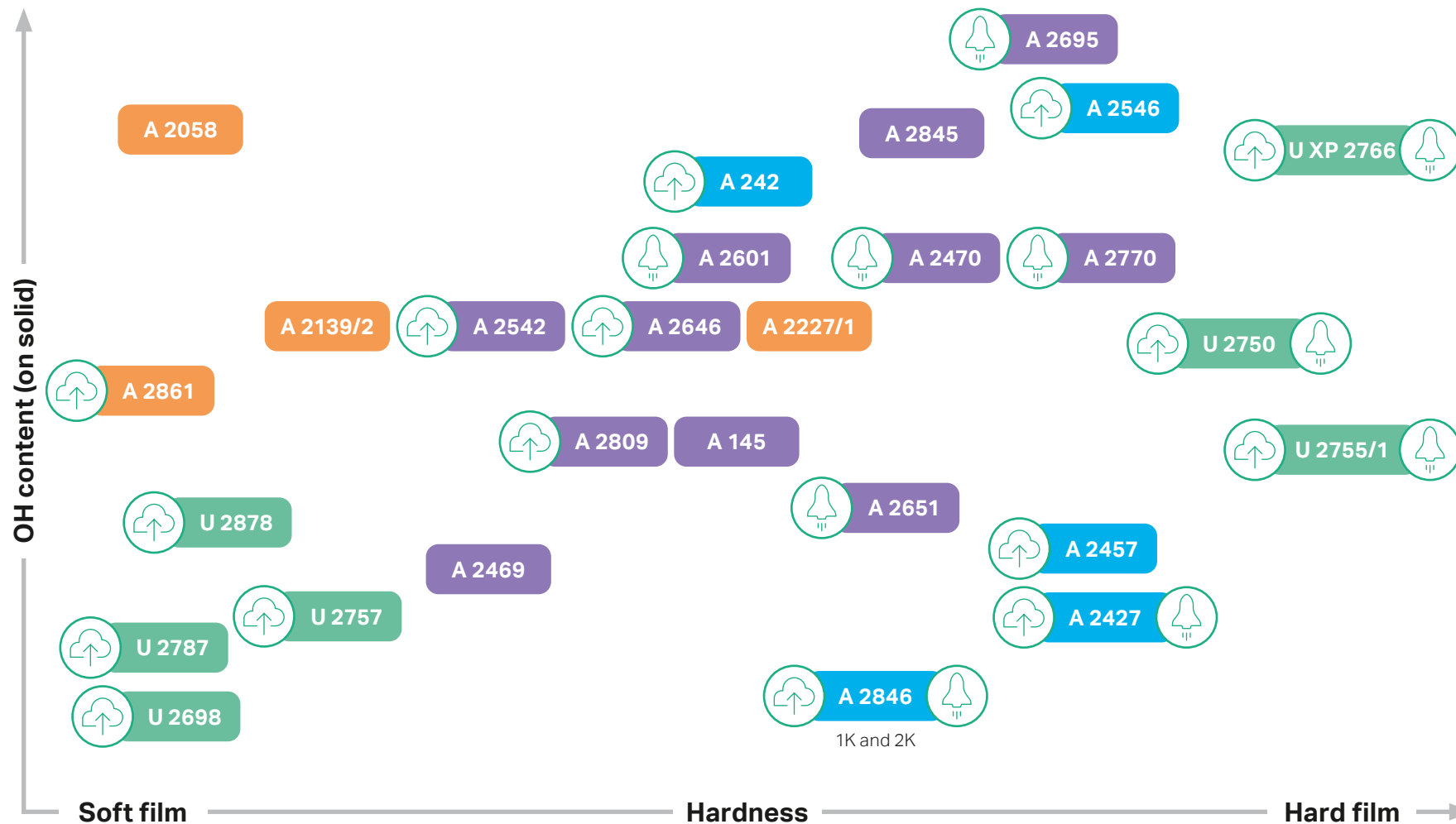


Secondary acrylic polyol dispersions for waterborne 2K PUR & 1K PUR stoving systems

	NON-VOLATILE CONTENT APPROX. [%]	NEUTRALIZATION AGENT	CO-SOLVENT CONTENT [%] IN SUPPLY FORM	OH CONTENT APPROX. [%] ON SOLIDS	T _g APPROX. [°C]	COMMENTS
Bayhydrol® A 2469	45	DMEA	PnB 7.9	2.5	33	High gloss, cost-effective because of less polyisocyanates demand.
Bayhydrol® A 2651	41	DMEA	PnB 3.4	3.0	54	Fast drying, high chemical resistance, excellent grain accentuation ("Anfeuerung") on wood.
Bayhydrol® A 145	45	DMEA	SN 4/BG 4	3.3	36	Suitable for high gloss, clear and pigmented topcoats and primers.
Bayhydrol® A 2809	48	DMEA	PnB 2.0	3.3	16	Low VOC; Suitable for high gloss, clear and pigmented topcoats and fillers with good adhesion properties to various substrates.
Bayhydrol® A 2542	50	Triethanolamine	PnB 1.1	3.8	17	High gloss, good chemical and mechanical resistance, outstanding water resistance. Not recommendable for spray applications.
Bayhydrol® A 2646	50	Triethanolamine	PnB 1.1	3.8	15	Faster drying version of A 2542 with similar property profile. Not recommendable for spray applications.
Bayhydrol® A 2470	45	DMEA/ Triethanolamine	SN 4/PnB 4	3.9	59	For high-performance clear-/topcoats in various applications, excellent gloss, chemical & weathering resistance.
Bayhydrol® A 2601	45	DMEA/ Triethanolamine	SN 4/PnB 4	3.9	50	High gloss, high chemical resistance, very fast drying & curing, combined with long pot life.
Bayhydrol® A 2770	44	DMEA	PnB 3.6	3.9	47	Low VOC product for high-performance clear-/topcoats in various applications, with excellent gloss, chemical & weathering resistance and fast drying.
Bayhydrol® A 2845	40	DMEA	PnB 3.2	4.5	31	High gloss, good chemical and weather resistance, low thermoyellowing, low VOC.
Bayhydrol® A 2695	41	DMEA/ Triethanolamine	PnB 7.2	5.0	53	For clear-/topcoats with high hardness, very high chemical resistance (against e.g. anti graffiti cleaners and disinfectants) and high weather resistance. Also recommended for primers with excellent corrosion protection properties.

Polyurethane dispersions Bayhydrol® U Polyacrylic dispersions Bayhydrol® A

OH-functional dispersions (for 2K wb PU).



- OH functional polyurethane dispersion
- Polyester modified acrylic dispersion
- Secondary acrylic dispersion
- Primary acrylic dispersion
- Low to zero VOC
- Fast drying

Bayhydrol® U

Elastic and durable OH-functional polyurethane dispersions for waterborne 2K coatings & 1K PUR stoving systems.

Bayhydrol® U is a waterborne dispersion without intentionally added co-solvent.

Aqueous polyurethane-polyol dispersions for waterborne 2K & 1K PUR stoving systems

	NON-VOLATILE CONTENT APPROX. [%]	NEUTRALIZATION AGENT	OH CONTENT APPROX. [%] ON SOLIDS	T _g APPROX. [°C]	COMMENTS
Bayhydrol® U 2698	52	DMEA	1.5	-40	OH functional PU dispersion with strong soft-feel effect.
Bayhydrol® U 2750	41	DMEA	3.6	16	For high gloss, clear and pigmented topcoats and primers, outstanding weather resistance, marked self-healing effect after scratching.
Bayhydrol® U 2755/1	35	DMEA	3.0	60	Very fast drying, high hardness & chemical resistance. Excellent grain accentuation on wood. Odor-free. Near zero-VOC formulations possible.
Bayhydrol® U 2757	52	DMEA	1.8	-39	For good hydrolysis resistance and long pot life. Suitable for plastic coatings incl. soft-feel, universal adhesion profile on plastics. Product also suitable for natural wood appearance.
Bayhydrol® U XP 2766	37	DMEA	4.0	51	Very high gloss for clearcoats and pigmented topcoats, fast drying, chemical resistance and hardness development, low thermoyellowing.
Bayhydrol® U 2787	41	DMEA	1.7	-37	High shear stability, good hydrolysis and chemical resistance. For plastic coatings and also for highly haptic soft-feel coatings.
Bayhydrol® U 2878 NEW	48	DMEA	2.7	-31	Good adhesion on plastics, good hydrolysis resistance and chemical resistance. For elastic 2K coatings especially on plastic, incl. soft-feel coatings and primers.



Bayhydrol® UH

Fast-drying polyurethane dispersions for tough, durable and elastic waterborne coatings. Excellent for 1K formulations. **Bayhydrol® UH** is a waterborne dispersion without intentionally added co-solvent.



Aqueous high molecular weight polyurethane dispersions for waterborne 1K PUR coatings

	NON-VOLATILE CONTENT APPROX. [%]	NEUTRALIZATION AGENT	MFFT APPROX. [°C]	T _g APPROX. [°C]	COMMENTS
Bayhydrol® UH 240	40	Na salt	0	-50	For soft-feel coatings and flexibilization of 1K & 2K industrial coatings.
Bayhydrol® UH 340/1	40	Na salt	0	-45	Highly elastic for the flexibilization of hard PAC and PUR dispersions and 1K industrial coatings. For soft-feel coatings with excellent soft-touch effect. Recommended for the formulation of elastic construction coatings.
Bayhydrol® UH 650	50	Na salt	0	-3	Flexibilization resin for air- and forced-drying basecoats. Combination resin for soft-feel coatings and primers due to broad adhesion profile on several substrates.
Bayhydrol® UH 2305	50	Na salt	0	-50	Highly elastic dispersion for primers and soft-feel coatings.
Bayhydrol® UH 2558	37	TEA	24	-60	High hardness and abrasion resistance, tough and elastic, well suited for 2K applications.
Bayhydrol® UH 2606	35	EDIPA	45	-45	Broad adhesion profile, high hardness and toughness, well suited for 2K formulations.
Bayhydrol® UH 2648	35	TEA	0	-45	For the formulation of water-thinnable 1K- and 2K coatings with broad adhesion profile on different substrates, especially for plastic. Very suitable as flexibilizing co-binder. Well suited for metallic coating systems, basecoats, fillers and topcoats.
Bayhydrol® UH 2648/1	35	DMEA	0	-45	For the formulation of water-thinnable 1K- and 2K coatings with broad adhesion profile on different substrates, especially for plastic. Very suitable as flexibilizing co-binder. Well suited for metallic coating systems, basecoats, fillers and topcoats.
Bayhydrol® UH 2660/1	40	Na salt	0	-35	For improved stability against hydrolysis, solvents and suntan lotions. Combination resin for soft-feel coatings.
Bayhydrol® UH 2952/1	40	DMEA	0	-40	For metallic basecoats and primers, excellent stability against hydrolysis.

Bayhydrol® UH

Fast-drying polyurethane dispersions for tough, durable and elastic waterborne coatings. Excellent for 1K formulations. **Bayhydrol® UH** is a waterborne dispersion without intentionally added co-solvent.



Aqueous high molecular weight polyurethane dispersions for waterborne 1K PUR coatings

		NON-VOLATILE CONTENT APPROX. [%]	NEUTRALIZATION AGENT	MFFT APPROX. [°C]	T _g APPROX. [°C]	COMMENTS
Bayhydrol® UH 2864	NEW	59	Na salt	0	-13	High solids content, rubber-elastic behaviour, outstanding flexibility. Suitable to improve mechanical properties and ponding water resistance of elastic construction coatings and for thin-layer automotive applications like basecoat or primer.
Bayhydrol® UH 2889	NEW	40	DMEA	0	-40	For decorative peelable coating application, easy peelability over a wide variety of substrates.
Bayhydrol® UH 2891	NEW	40	Na salt	17	-55	Recommended for the formulation of elastic construction coatings, especially in terms of its high elongation, strong tensile strength, low water absorption and good weather stability.
Bayhydrol® UH 2894	NEW	60	Na salt	0	-69	High solids content, rubber-elastic behaviour, outstanding flexibility, for thin-layer applications like basecoat or primer.

Bayhydrol® UH

Fast-drying polyurethane dispersions for tough, durable and elastic waterborne coatings. Excellent for 1K formulations. **Bayhydrol® UH** is a waterborne dispersion without intentionally added co-solvent.



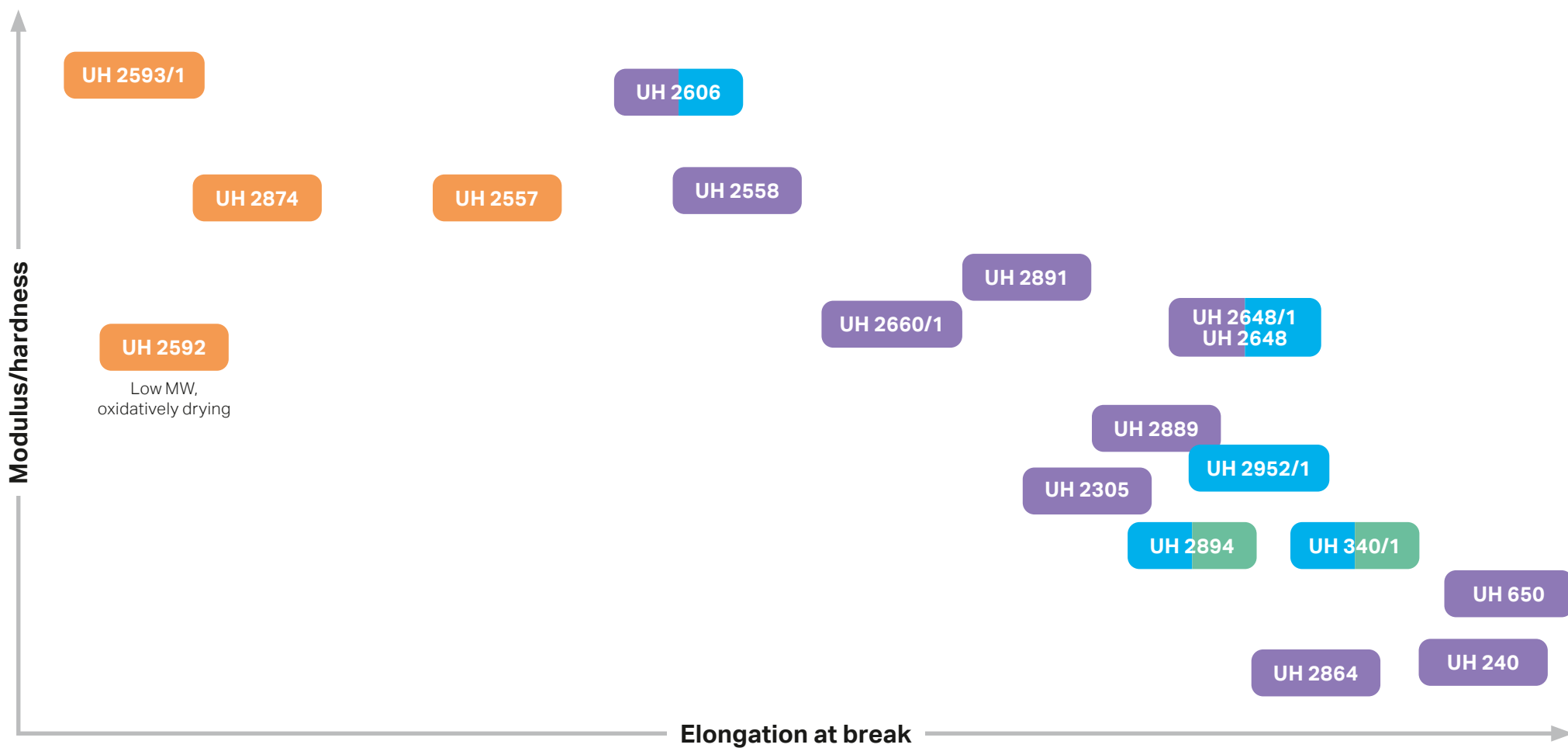
Fatty acid-modified polyurethane dispersions for waterborne 2K & 1K PUR coatings

	NON-VOLATILE CONTENT APPROX. [%]	NEUTRALIZATION AGENT	MFFT APPROX. [°C]	T _g APPROX. [°C]	COMMENTS
Bayhydrol® UH 2557	35	TEA	38	-8	Self-crosslinking, fatty acid-modified, pure waterbased alternative to former Bayhydrol® UH 2342 , good abrasion resistance, good black-heel mark resistance.
Bayhydrol® UH 2592	45	EDIPA	2	30	Universal oxidatively drying product for industrial metal and exterior wood coatings with low VOC, excellent corrosion protection as primer and high-gloss topcoats. Drier and anti-skin agents not intentionally added.
Bayhydrol® UH 2593/1	35	TEA	60	103	Self-crosslinking, fatty acid-modified, good black-heel mark resistance and high hardness, improves drying speed as co-binder.
Bayhydrol® UH 2874	40	EDIPA	40	45	Oxidatively drying, developed for parquet coatings, excellent chemical and black-heel mark resistance, strong physical drying, 2K performance in 1K.

Polyurethane dispersions Bayhydrol® UH

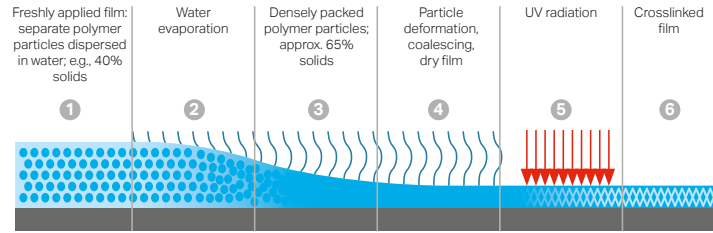
Aqueous high molecular weight polyurethane dispersions for tough, durable and elastic coatings.

- PET based
- Fatty acid modified
- PES based
- PC based



Bayhydrol® UV

One of the most promising technology amongst the various environment-friendly wood and plastic coating systems are UV-curing polyurethane dispersions. UV waterborne systems offer the fastest curing waterborne coating technology, with a high crosslinking density, enabling overspray recycling and contributing to low to zero VOC formulations. Advantages that make this technology particularly suitable when higher productivity is required. The whole **Bayhydrol® UV** portfolio does not contain intentionally added organotin compounds.



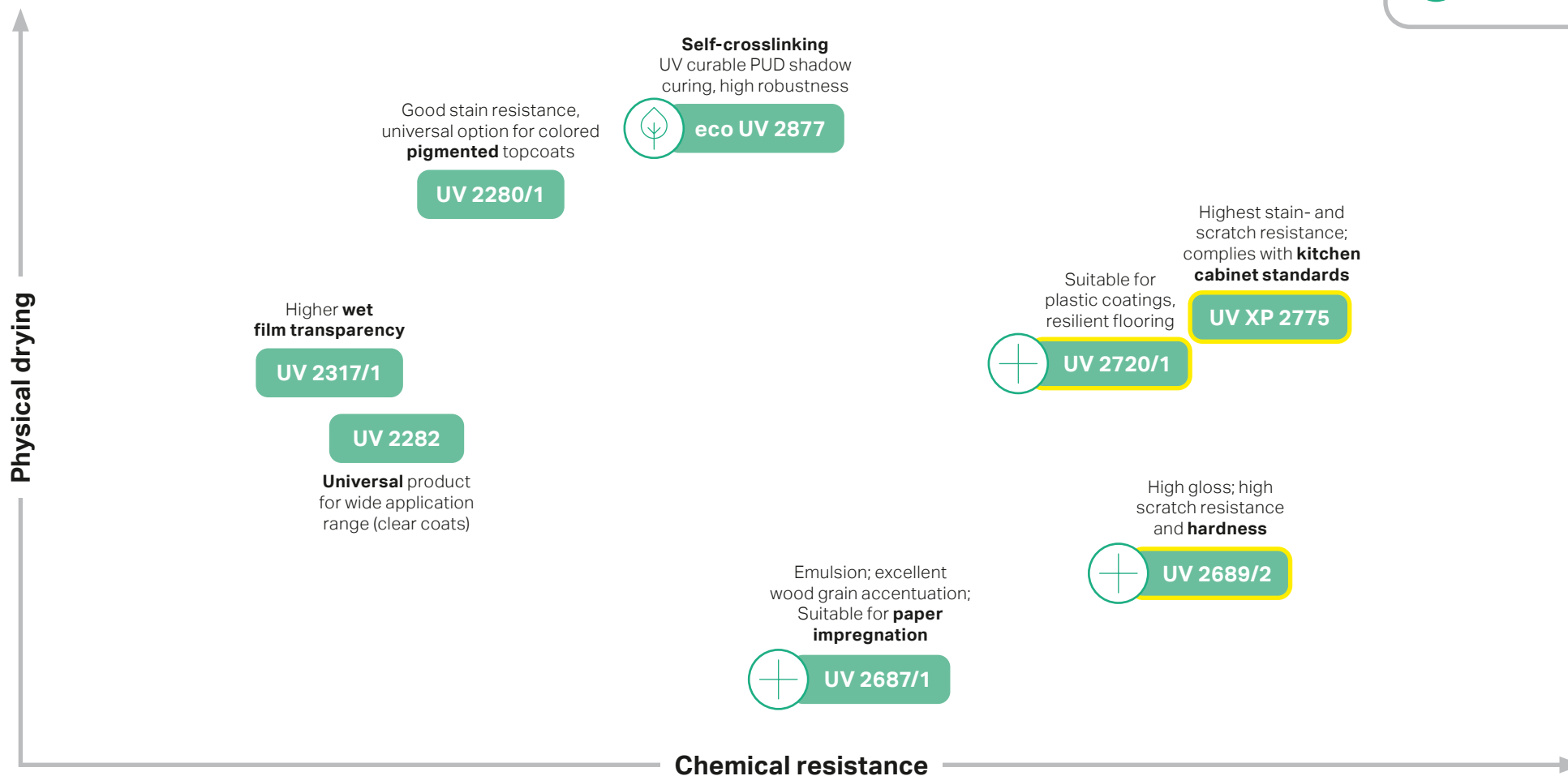
Radiation curing polyurethane dispersions




	NON-VOLATILE CONTENT APPROX. [%]	NEUTRALIZATION AGENT	T _g APPROX. [°C]	COMMENTS
Bayhydrol® UV 2280/1	39	TEA	76	Outstanding physical drying, good standard product for pigmented coatings.
Bayhydrol® UV 2282	39	TEA	-30	High chemical resistance, good grain wetting, physical drying, for all-around use (multicoat).
Bayhydrol® UV 2317/1	37	TEA	-29	High wet-film transparency, good grain wetting, physical drying.
Bayhydrol® UV 2687/1	40	TEA	53	PUR emulsion for excellent wood grain accentuation and paper impregnation, good adhesion and high chemical resistance; high hardness; good reemulsification; especially suitable for clearcoats.
Bayhydrol® UV 2689/2	42	TEA	-35	Highest crosslinking density, low physical drying, especially for wood and plastics as clear, pigmented or single layer metallic coats. High gloss, high chemical and scratch resistance.
Bayhydrol® UV 2720/1	40	TEA	-23	Combines physical drying and highest crosslinking density, especially for pigmented systems, thermoformable before UV. Suitable for plastic coating, including PVC.
Bayhydrol® UV XP 2775	40	TEA	32	Excellent chemical and stain resistance, in white pigmented topcoats or matt clearcoats.
Bayhydrol® eco UV 2877	38	TEA	48	Self-crosslinking UV-curable polyurethane dispersion. Fast water release, high chemical resistance and shadow curing. Bio-based content on supply form approx. 35%*.

* Calculated minimum content of carbon derived from bio-based raw material like fat and fatty acids. Confirmed by ¹⁴C-Measurements according to ASTM D 6866:2008.

Bayhydrol® UV

UV-curing PU dispersions.



-  Contains reactive diluent for improved resistance
-  Good adhesion, suitable for various substrates
-  Partly bio-based

Bayhytherm® Bayhydur® BL Baybond® XL

The key to high coatings performance in 1K stoving applications.



Self-crosslinking urethane dispersion for 1K stoving systems

	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 100	800	Well balanced hardness-flexibility profile, low thermal yellowing, high gloss. Suitable for additional melamine crosslinking. For OEM primer surfacers, also for general industrial coatings.

Thermally activated waterborne poly-urethane crosslinker for 1K waterborne stoving systems

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

* See page 6

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 polyisocyanates

	TYPE	SUPPLY FORM APPROX. [%]	NCOC	NCO CONTENT ON SUPPLY FORM APPROX. [%]	EQUIVALENT WEIGHT APPROX.	FUNCTIONALITY APPROX.	COMMENTS
		TYPE	VISCOSITY AT 23°C APPROX. [mPa · s]				
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® 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 is without any 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	IPDI	70 in MPA	6,500	11.0	380	3.1	Ionically modified (sulfonic acid), fast drying, easy mixing, high chemical resistance.
Bayhydur® eco 701-90	PDI	90 in PGDA	5,000	17.9	230	3.6	Ionically modified (sulfonic acid) crosslinker for 2K WB coatings containing approx. 61%* (biobased content on supply form) renewable carbon. Highest chemical resistance, easy mixing and high gloss.
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.

* Based on results of 14C/total C according to ASTM D 6866.

Desmodur® family

Best in class: lowest viscosity polyisocyanate crosslinkers recommended for waterborne two-component polyurethane systems.



Low viscous polyisocyanates

	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 HDI 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® ultra N 3900 NEW	HDI Isocyanurate	100	730	23.5	180	3.2	Low-viscosity crosslinker for UV stable and good gloss retention 2K PUR coatings (high solids/waterborne, e.g., in combination with Bayhydur® types).
Desmodur® N 31000	HDI uretdione/ Isocyanurate	100	500	23.0	185	3.0	Low-viscosity crosslinker for UV stable and good gloss retention for 2K PUR coatings (high solids/ waterborne, e.g., in combination with Bayhydur® types). Previously known as Desmodur® XP 2840 .
Desmodur® N 31100	HDI 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® ultra N 3600	HDI Isocyanurate	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).
Desmodur® Z 4580 BA	IPDI allophanate	80 in BA	2,800	12.0	350	2.5	Crosslinker for weatherstable, fast-drying high solids and waterborne 2K PUR coatings, e.g., in combination with Bayhydur® types. Previously known as Desmodur® XP 2565 .

Flexibilizing polyisocyanates

Desmodur® N 3800	HDI Isocyanurate	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.
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Impranil®

Waterborne, anionic/nonionic aliphatic and aromatic polyurethane dispersions for environment-friendly textile coatings. Suitable for all common textile coating processes in the fields of sports, clothing, fashion accessories, technical items and general protective equipment.



Aqueous PUR dispersions for textile coatings

	TYPE	NON-VOLATILE CONTENT APPROX. [%]		HYDROLYTIC STABILITY* (DIN EN 12280-3) [WEEKS]		TENSILE STRENGTH DIN 53504 [MPa]		MELTING RANGE [°C]	COMMENTS
			LIGHT-FASTNESS DIN 75202		100% MODULUS DIN 53504 [MPa]		ELONGATION AT BREAK DIN 53504 [%]		
Impranil® DAH	Polyether	35	4	4	1.0	10	750	150–170	Soft aromatic tie coat with very good adhesion to various substrates.
Impranil® DL 1007 NEW	Polyester	37	7	3	18.0	20	400	160–180	No yellowing, very good wet film transparency, good abrasion resistance, heat re-activable at 130–150°C.
Impranil® DL 1016	Polyester	50	7	4	2.4	30	750	170–180	Improved hydrolysis resistance, high flexibility, suitable for mechanical foaming.
Impranil® DL 1068	Polyether	50	7	>10	1.6	21	1,050	210–230	High elasticity, good abrasion resistance; good flex resistance.
Impranil® DL 1109 NEW	Polyester	41	7	3	1.8	12	1,100	215–230	Heat activable @ 90–100°C suitable for dry lamination, good bonding properties, soft handle.
Impranil® DL 1116	Polyester	59	7	2	1.4	25	1,000	210–220	Improved hydrolysis resistance, very soft and comfortable haptic feeling; excellent film building ability; good adhesion on conv. fabrics such as cotton, polyester etc.; suitable for mechanical foaming and textile printing, high solids content.
Impranil® DL 1343 NEW	Polyether	40	7	10	2.5	25	850	200–220	Carboxyl containing product which could be crosslinked with carbodiimid as Desmodur® 2802 .
Impranil® DL 1380	Polyester	60	7	1	1.2	25	1,200	210–220	Very soft and comfortable haptic feeling; excellent film building ability; good adhesion on conventional fabrics such as cotton, polyester etc.; suitable for mechanical foaming, high solids content.
Impranil® DL 1537	Polyester	60	7	2	2.0	15	850	200–210	Good resistance to hydrolysis, good adhesion, high solids content, soft handle. Perfectly suited for direct coating to apply high dry add-on in one coat.

* Based on crosslinked dry film

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Aqueous PUR dispersions for textile coatings

	TYPE	NON-VOLATILE CONTENT APPROX. [%]		HYDROLYTIC STABILITY* (DIN EN 12280-3) [WEEKS]		TENSILE STRENGTH DIN 53504 [MPa]		MELTING RANGE [°C]	COMMENTS
			LIGHT-FASTNESS DIN 75202		100% MODULUS DIN 53504 [MPa]		ELONGATION AT BREAK DIN 53504 [%]		
Impranil® DL 1554	Polyester	60	7	2	3.0	26	750	200–220	High flexibility; excellent mechanical foaming; high solids content.
Impranil® DL 1701 NEW	Polycarbonate	40	7	8	5.0	35	400	200–220	Excellent resistance to hydrolysis, good resistance to aging, high scratch and alcohol resistance.
Impranil® DL 2077	Polycarbonate	35	7	> 10	25.0	30	150–200	100–120	Very hard, excellent hydrolysis resistance.
Impranil® DL 2611	Polyester	40	7	3	18.0	40	130	200–220	Dry hand and transparent finish with good hydrolysis and abrasion resistance.
Impranil® DL 2772	Polyester	40	7	1	2.5	40	800	175–200	Semi-crystalline, good alcohol resistance, good elongation, works perfectly in combination with SBR latex for glove coating to increase washing resistance and cut resistance.
Impranil® DL 3040	Polyester	40	7	1	5.0	40	800	175–200	Flexible, semi-crystalline, dry, tough.
Impranil® DL 519	Polyester	40	7	1	7.0	40	550	180–200	Finish for synthetics; flexible, dry touch, alcohol resistance.
Impranil® DLC-F	Polycarbonate	40	7	3	6.0	50	360	215–225	Excellent resistance to hydrolysis, good resistance to ageing, high scratch resistance and alcohol resistance.
Impranil® DLC-T	Polyester/ Polycarbonate	35	7	> 5	5.5	6	500	150–160	Good printability, good hydrolysis resistance after crosslinking, gives matt finish on different substrates such as PVC, PU, TPU or TPO.

* Based on crosslinked dry film

Impranil®

Waterborne, anionic/nonionic aliphatic and aromatic polyurethane dispersions for environment-friendly textile coatings. Suitable for all common textile coating processes in the fields of sports, clothing, fashion accessories, technical items and general protective equipment.



Aqueous PUR dispersions for textile coatings

	TYPE	NON-VOLATILE CONTENT APPROX. [%]		HYDROLYTIC STABILITY* (DIN EN 12280-3) [WEEKS]		TENSILE STRENGTH DIN 53504 [MPa]		MELTING RANGE [°C]	COMMENTS
			LIGHT-FASTNESS DIN 75202		100% MODULUS DIN 53504 [MPa]		ELONGATION AT BREAK DIN 53504 [%]		
Impranil® DLH	Polyester	40	7	3	4.2	50	850	165–175	Low melting point; high flexibility; high lightfastness.
Impranil® DLI	Polyester	50	7	3	2.0	37	950	190–200	Nonionic, high flexibility, suitable for mechanical foaming.
Impranil® DLN W 50	Polyester	50	7	1	1.7	35	950	175–200	Soft, dry hand; good washing resistance when crosslinked; good film forming; excellent composting behavior and suitable for mechanical foaming.
Impranil® DLN-SD	Polyester	40	7	1	1.7	35	950	175–200	Soft, dry hand; good washing resistance when crosslinked; good film forming; excellent composting behavior.
Impranil® DLP	Polyester	50	7	2	1	10	1,100	200–220	Very soft product with good adhesion to different substrates; mainly used as tie-coat.
Impranil® DLP-R	Polyester	50	7	2	0.9	10	1,100	200–220	Very soft product with good adhesion to different substrates; mainly used as tie-coat.
Impranil® DLS	Polyester	50	7	2	2.5	30	850	170–180	High flexibility, suitable for mechanical foaming.
Impranil® DLU	Polyether/ Polycarbonate	60	7	> 10	2.0	30	700	200–230	High solids content, outstanding resistance to hydrolysis, excellent mechanical foaming, high scratch resistance.
Impranil® DLU/1 NEW	Polycarbonate/ Polyether	60	7	> 10	2–3	30	900	215–230	Outstanding hydrolysis resistance, excellent foam resilience, excellent thermal yellowing resistance, very good flexibility, good alkali resistance.
Impranil® DLV/1	Polyether/ Polycarbonate	40	7	> 10	1.7	25	750	200–220	Very good resistance to hydrolysis; crosslinkable; good alcohol resistance; dry and skin-like touch; excellent washing resistance.

* Based on crosslinked dry film

Impranil® / Impraperm®

Waterborne, anionic/nonionic aliphatic and aromatic polyurethane dispersions for environment-friendly textile coatings. Suitable for all common textile coating processes in the fields of sports, clothing, fashion accessories, technical items and general protective equipment.



Aqueous PUR dispersions for textile coatings

		TYPE	NON-VOLATILE CONTENT APPROX. [%]	HYDROLYTIC STABILITY* (DIN EN 12280-3) [WEEKS]		TENSILE STRENGTH DIN 53504 [MPa]		MELTING RANGE [°C]	COMMENTS	
			LIGHT-FASTNESS DIN 75202	100% MODULUS DIN 53504 [MPa]	ELONGATION AT BREAK DIN 53504 [%]					
Impranil® eco DLS/1	NEW	Polyester	50	7	2	3.8	25	780	170–180	Intermediate layer for synthetic leather with excellent foam resilience and enhanced hydrolysis resistance with a bio-mass content of 50%.
Impranil® eco DL 519		Polyester	40	7	1	9.0	40	450	180–200	Finish for synthetic leather with a bio-mass content of 38%.
Impranil® eco DL 1878		Polyester	50	7	0	2.0	25	800	180–200	Tie-coat for synthetic leather with a bio-mass content of 56%.
Impranil® DA 1818	NEW	Polyether	20	3	1	0.6	4	900	70–100	Anionic, aromatic polyether-polyurethane dispersion which could be used as based coat for elastic substrates.
Impranil® DL 1850	NEW	Polyester	40	5	1	3.0	24	740	160–200	Medium hard anionic, aliphatic/aromatic polyester-polyurethane dispersion which could be used as finish or intermediate layer for elastic substrates in dark colors.
Impranil® DL 1885	NEW	Polyester/ Polycarbonate	40	7	8	5.4	26	400	90-125	Aliphatic polyester-polycarbonate-polyurethane dispersion with high hydrolysis resistance which could be used as finish for elastic substrates.
Impraperm® DL 5249	NEW	Polyether	32	7	2	3.2	22	620	220–240	Skin coat for wind-proof, water-proof and vapour-permeable textile coatings.
Impraperm® DL 5310/1	NEW	Polycarbonate	30	7	8	2.1	5	460	170–180	Tie-coat for wind-proof, water-proof and vapor-permeable textile coatings.

* Based on crosslinked dry film

Baybond®

Baybond® grades are used as film formers and crosslinkers in sizing formulations for fibers (e.g. glass, carbon, basalt). Utilized to reinforce thermoplastic as well as thermoset composite materials.



Products film formers for fiber sizings

	TYPE	HYDROPHILIC CHARACTER	NON-VOLATILE CONTENT APPROX. [%]	pH-VALUE APPROX.	COMMENTS
Baybond® PU 330	Polyester	Ionic/nonionic	30	7.3	Recommended for thermoset application.
Baybond® PU 401-A	Polyester	Ionic/nonionic	50	7.5	Universal product with balanced properties for various application.
Baybond® PU 403	Polyester	Ionic/nonionic	39	7.0	PUD film former with crosslinker function. Deblocking temperature 150°C.
Baybond® PU 404	Polyester	Nonionic	50	7.0	Universal product with balanced properties for various application. Food contact acc. to EU 10/2011.*
Baybond® PU 405	Polyether	Ionic/nonionic	34	7.0	PUD film former with additional crosslinking function. Deblocking temperature 170°C.
Baybond® PU 406	Polyether	Nonionic	34	6.5	Excellent fibre integrity and hydrolysis resistance.
Baybond® PU 407	Polyester	Ionic/nonionic	40	7.0	High film tensile strength.
Baybond® PU 409	Polyester	Ionic/nonionic	50	7.5	Extremely low thermal yellowing.
Baybond® PU 415	Polyester	Ionic/nonionic	45	7.0	Balanced properties for low to mid application.
Baybond® PU 571	Polyether	Nonionic	34	6.5	Excellent fibre integrity and good hydrolysis resistance. Food contact acc. to EU 10/2011.*
Baybond® PU 1810/1	Polyester	Nonionic	50	6.0	Outstanding thermostability. Food contact acc. to EU 10/2011.*
Baybond® PU 2277	Polyester	Ionic/nonionic	40	7.5	High film tackiness and good fibre integrity.
Baybond® PU 2569	Polyester	Ionic/nonionic	41	8.5	High film tackiness and good fibre integrity.
Baybond® PU 2728	Polycarbonate-polyether	Ionic/nonionic	59	8.0	Excellent hydrolysis resistance.
Baybond® PU 7269	Polyether	Ionic/nonionic	30	8.5	High film tackiness and good fibre integrity.

* See page 6

Baybond®

Baybond® grades are used as film formers and crosslinkers in sizing formulations for fibers (e.g. glass, carbon, basalt). Utilized to reinforce thermoplastic as well as thermoset composite materials.



Thermally activated PUR crosslinkers for fiber sizings

	TYPE	BLOCKING AGENT	NON-VOLATILE CONTENT APPROX. [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	CALCULATED BLOCKED NCO CONTENT ON SUPPLY FORM/ (RESIN) APPROX. [%]	EQUIVALENT WEIGHT APPROX.	COMMENTS
Baybond® XL 825	HDI	ε-CAP	30 in water	< 200	3.0 (10.0)	1,400	Low thermal yellowing, improved impact strength, adhesion and flexibility. Deblocking temperature approx. 170°C.
Baybond® XL 1187	HDI	MEKO	30 in water	< 200	2.9 (9.8)	1,450	High particle size, flexible and non ionic character. Deblocking temperature approx. 150°C.
Baybond® XL 6366	HDI	MEKO	45 in water	< 200	5.6 (12.5)	975	High solid content, high flexibility. Deblocking temperature approx. 150°C.

Thermally activated PUR crosslinkers for fiber sizings compliant to 2011/10/EU for food contact*

Baybond® XL 3674	HDI	ε-CAP	30 in water	< 200	3.2 (10.7)	1,310	Improved impact strength, adhesion and flexibility. Deblocking temperature approx. 170°C.
Baybond® XL 7270	HDI	ε-CAP	30 in water	< 100	3.9 (13.1)	1,000	Low thermal yellowing, improved impact strength, adhesion and flexibility. Deblocking temperature approx. 170°C.

* See page 6

Dispercoll® U

Aqueous, anionic dispersions of high molecular weight polyurethanes. **Dispercoll® U** grades are especially suitable for the manufacturing of heat-activated adhesives with outstanding bonding properties on most synthetic and natural materials.



PUR dispersions for adhesive applications

NON-VOLATILE CONTENT APPROX. [%]	VISCOSITY AT 23°C [mPa · s]	RECOMMENDED MIN. BONDLINE TEMP. [°C] FOR HEAT ACTIVATION BONDING	
	CRYSTALLIZATION VELOCITY	COMMENTS	

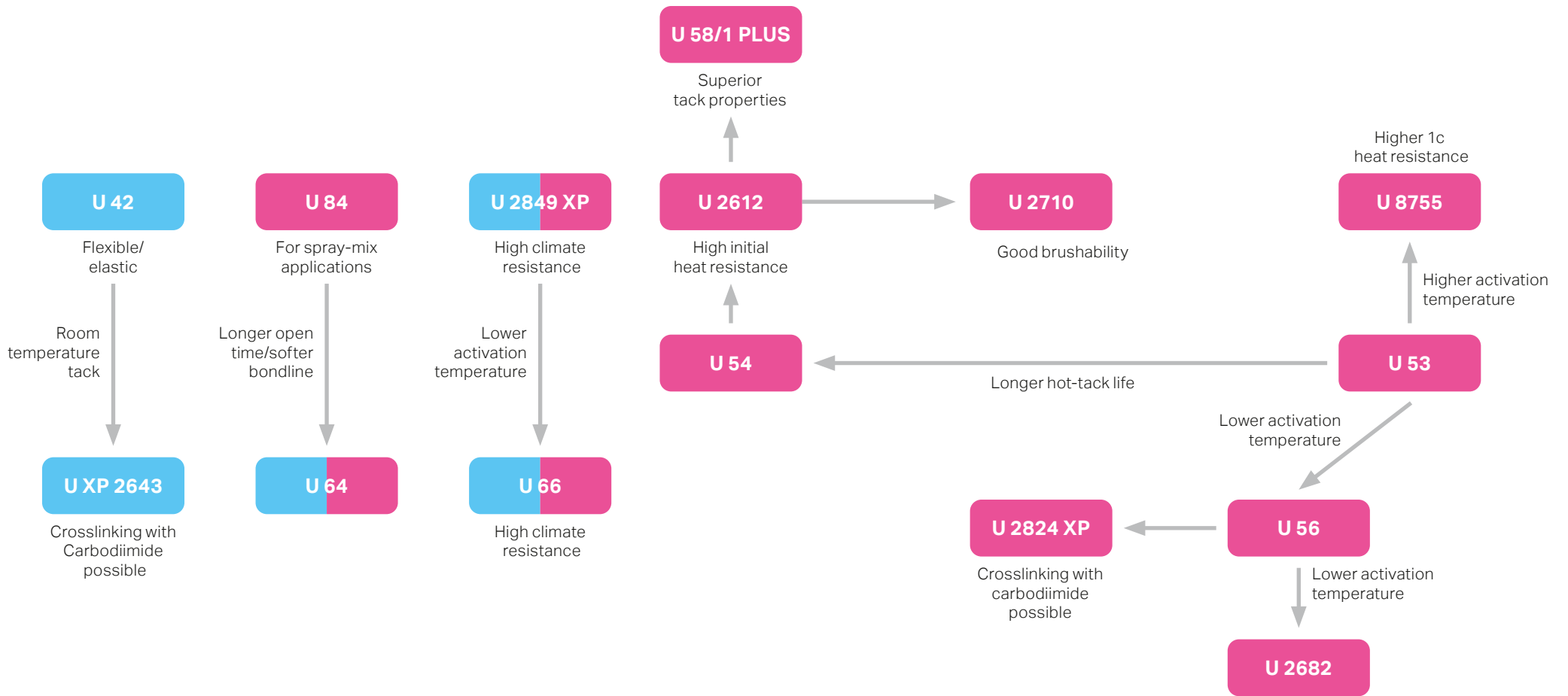
Dispercoll®	NON-VOLATILE CONTENT APPROX. [%]	VISCOSITY AT 23°C [mPa · s]	CRYSTALLIZATION VELOCITY	RECOMMENDED MIN. BONDLINE TEMP. [°C] FOR HEAT ACTIVATION BONDING	COMMENTS
Dispercoll® A 2865 NEW	40	< 150	not relevant	not relevant	Acrylate dispersion for blending with semi-crystalline PUR dispersions to improve heat seal temperature in packaging application. T _g of approximately 78°C.
Dispercoll® U 42	50	150–800	--	80–100	Soft and flexible polymer film, especially suitable for wet-bonding of textile substrates, suitable for lamination of packaging films.
Dispercoll® U 53	40	50–600	++	60–70	Raw material for the formulation of heat-activated adhesives for use in, for example, the furniture and automotive industries.
Dispercoll® U 54	50	40–600	+	60–70	Raw material for the formulation of heat-activated adhesives for use in, for example, the furniture, automotive and especially the footwear industries.
Dispercoll® U 56	50	50–900	+	55–65	Especially suitable for bonding at low heat activation temperatures in the furniture and automotive industries.
Dispercoll® U 58/1 PLUS NEW	50	< 1,000	o	50–70	Especially suitable for heat activation bonding applications with high initial heat resistance, e.g. for footwear sole bonding, good tack properties.
Dispercoll® U 64	42	< 1,000	+	not relevant	Especially suitable for wet adhesive application with spray-mix coagulation.
Dispercoll® U 66	48	< 1,000	-	55–75	Especially suitable for adhesive application with improved climate resistance at low heat activation temperatures.
Dispercoll® U 84 NEW	40	< 1,000	++	not relevant	Especially suitable for wet adhesive application with spray-mix coagulation.
Dispercoll® U 2612	50	50–800	+	65–75	Especially suitable for heat activation bonding applications with high initial heat resistance, e.g. for footwear sole bonding.
Dispercoll® U XP 2643	40	< 1,000	--	not relevant	Especially suitable for bonds at low to moderate temperatures, even at room temperature, polymer contains carboxyl groups that can be crosslinked with polycarbodiimide crosslinker, suitable for packaging film lamination.
Dispercoll® U 2682	50	< 1,000	++	50–60	Lower molecular weight crystallizing polyurethane dispersion, especially suitable for applications at low heat activation temperatures in the furniture and automotive industries and for packaging lamination, good wetting properties due to low melt viscosity.
Dispercoll® U 2710	45	< 1,000	+	65–75	Especially suitable for heat activation bonding applications with high initial heat resistance, e.g. for footwear sole bonding, high shear stability.
Dispercoll® U 2824 XP	40	50–1,000	o	50–60	Suitable for heat activation bonding at low temperature, i.e. packaging lamination, polymer contains carboxyl groups that can be crosslinked with polycarbodiimide crosslinker.
Dispercoll® U 2849 XP	50	< 2,000	-	80–100	Suitable for adhesive applications with improved climate resistance.
Dispercoll® U 8755	45	< 1,000	++	80–100	Especially suitable for heat activation above 80°C, gives high heat resistance also when used without crosslinker.

++ = very fast + = fast o = medium - = low -- = non-crystallizing

Dispercoll® U

Polyurethane dispersions for adhesives.

- Non-crystallizing
- Crystallizing



Dispercoll® C

Aqueous anionic dispersions of a 2-chlorobutadiene polymer with varying crystallization tendency. **Dispercoll® C** dispersions are suitable for the formulation of aqueous contact adhesives. **Dispercoll® C** adhesives can be used to substitute solvent-borne contact adhesives in a wide range of applications with no loss of performance, while at the same time bringing great improvements with respect to environmental, handling and workplace safety issues.

CR dispersions for adhesive applications

	NON-VOLATILE CONTENT APPROX. [%]	pH VALUE APPROX.	CRYSTALLIZATION	GEL CONTENT	COMMENTS
Dispercoll® C 84	55	13	Very fast	Very low	Fast bond formation, good contactability and high bond strength.
Dispercoll® C 2325	55	12	Fast	Medium-low	Fast bond formation, good contactability and high bond strength, good heat resistance in formulations with Dispercoll® S and high crosslinking density with isocyanate crosslinker, excellent storage stability.
Dispercoll® C 74	58	13	Medium	Medium	Good heat resistance and long open time.
Dispercoll® C VP LS 2372/1	58	13	Very slow	Medium-low	Good contactability and good wet tack, good adhesion to unpolar substrates, high crosslinking density with isocyanate crosslinker, Dispercoll® C VP LS 2372/1 is typically used as blend component to improve wet tack, excellent storage stability.



Dispercoll® S

Nano SiO₂ dispersions with small particle size. Formulated with a **Dispercoll® C** grade in combination with ZnO, the **Dispercoll® S** grades can act as thickener. For improved drying behavior and initial tack the grades with high solids content should be preferred. The effect on rheology, HCl stability as well as reinforcing effect and heat resistance is higher with low particle size **Dispercoll® S**. **Dispercoll® S** can also be used as an additive for other polymer dispersions such as **Dispercoll® U**.



Nano SiO₂ dispersions as additives for Dispercoll® C and other polymer dispersions

	NON-VOLATILE CONTENT APPROX. [%]	pH VALUE APPROX.	AVERAGE PARTICLE SIZE APPROX. [nm]	SPEC. SURFACE APPROX. [m ² /g]	DENSITY APPROX. [g/cm ³]	EFFECT ON RHEOLOGY	COMMENTS	
						EFFECT ON REINFORCEMENT		
Dispercoll® S 3020	30	3	15	200	1.208	++	++	For 1K spray adhesives boosting the wet bonding performance (even for foam/wood) by lower pH value.
Dispercoll® S 3030	30	9	9	300	1.208	+++	+++	For Dispercoll® C contact adhesives with high strength and heat resistance.
Dispercoll® S 3030/1	30	11	9	350	1.208	+++	+++	
Dispercoll® S 4020	40	10	15	200	1.295	++	++	For Dispercoll® C contact adhesives with high strength and heat resistance.
Dispercoll® S 4510	45	10	30	100	1.340	o	o	For Dispercoll® C contact adhesives for flexible substrates such as leather and textiles.
Dispercoll® S 5005	50	9	55	50	1.390	o	o	For Dispercoll® C contact adhesives for flexible substrates such as leather and textiles.

o = low + = medium ++ = high +++ = very high

Crosslinking technologies for PU adhesive dispersions

Bonding technologies

Waterborne 2K technology

Latent reactive 1K technology (waterborne)

1K crosslinking with carbodiimide (waterborne)

	Waterborne 2K technology	Latent reactive 1K technology (waterborne)	1K crosslinking with carbodiimide (waterborne)
Crosslinker	Hydrophilic modified polyisocyanate (e.g., Desmodur® ultra DN)	Surface-deactivated solid polyiso-cyanate (e.g., Dispercoll® BL XP 2514)	Hydrophilic modified polycarbodiimide (Desmodur® 2802)
Processing	2-component	1-component	1-component
Pot life of mixture	6 to 8 hours	3 to 6 months	3 to 6 months
Open time of dried adhesive layer	6 to 8 hours	> 6 months	< 1 hour
Curing speed	Hours to days	Hours to days	Minutes to hours

Dispercoll® / Desmodur® / Bayhydur®

Crosslinkers for adhesives applications.

Desmodur® ultra / Bayhydur® ultra qualities perform with < 0.1% monomer content.



Crosslinkers for latent reactive polyurethane adhesives

	TYPE	NON-VOLATILE CONTENT APPROX. [%]	T _g APPROX. [°C]	NCO CONTENT APPROX. [%]	COMMENTS
Dispercoll® BL XP 2514	Aqueous TDI-dimer suspension	40 in water		9.0	Crosslinker suspension for latent-reactive PUD.
Desmodur® Z 2589	Micronized IPDI-isocyanurate	100	65	17.0	IPDI-trimer powder for preparation of crosslinker-suspensions for latent-reactive PUD.

Crosslinkers for adhesive dispersions

	TYPE	NON-VOLATILE CONTENT [%]	VISCOSITY AT 23°C APPROX. [mPa · s]	NCO CONTENT APPROX. [%]	COMMENTS
Desmodur® 2802	Aqueous dispersion of hydrophilic polycarbodiimide	40 in water	100	approx. 1 mmol -N = C = N -/g	Crosslinker for carboxylate functionalized dispersions, suitable for 2K formulations with long pot life.
Desmodur® ultra DA-L	Hydrophilic modified isocyanate	100	3,000	20.0	Low hydrophilicity.
Desmodur® ultra DN	Hydrophilic modified isocyanate	100	1,250	21.8	Low hydrophilicity.
Bayhydur® ultra 304	Hydrophilic modified isocyanate	100	4,000	18.2	High hydrophilicity, in compliance with U.S. FDA's guideline "Title 21 CFR:" Section 175.105 "Adhesives".*
Bayhydur® ultra 3100	Hydrophilic modified isocyanate	100	2,800	17.4	High hydrophilicity, in compliance with U.S. FDA's guideline "Title 21 CFR:" Section 175.105 "Adhesives".*

Crosslinker for CR dispersion

Bayhydur® ultra 401-70 MPA/X	IPDI-based hydrophilic polyisocyanate	70 in MPA/X	1,500	9.4	Used in CR-dispersion formulations, yields a high chemical crosslinking density to achieve excellent heat resistance, featuring very long pot life even at high pH, excellent storage stability.
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* See page 6



Legend

Solvents

AMP	Aminomethyl propanol
BA	Butyl acetate
BDG	Butyl diglycol
BG	Butyl glycol
DPGDA	Dipropylen glycol diacetate
EA	Ethyl acetate
IB	Isobutanol
MPA	Methoxypropylacetate
MPA/X	Methoxypropylacetate/Xylene
PGDME	Dipropylenglycol dimethyl ether
PGDA	Propylene glycol diacetate
PnB	Propylenglycol-n-bulylether
SN	Solvent naphtha
X	Xylene

Neutralization agents

DMEA	Dimethyl ethanol amine
EDIPA	Ethyl diisopropyl amine
NH ₃	Ammonia
TEA	Triethyl amine

Isocyanates

TDI	Toluylene diisocyanate
HDI	Hexamethylene diisocyanate
IPDI	Isophorone diisocyanate
H ₁₂ MDI	Dicyclohexylmethane diisocyanate

Dispersions

PAC	Polyacrylate
PES	Polyester
PUR	Polyurethane

Blocking agents

DMP	Dimethylpyrazol
MEKO	Methyl ethyl ketoxime
ε-CAP	Caprolactam

Other abbreviations

T _g	Glass transition temperature
MFFT	Minimum film formation 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 CO₂-based materials that do not sacrifice high performance.

Join us to shape the future!







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