



Uralac® Crelan®

Uralac® polyester resins & Crelan® isocyanate crosslinkers for powder coatings

Product Overview North America





Shaping a sustainable coatings future together

Covestro is a leading supplier of high-quality, polyester powder coating resins and isocyanate crosslinkers for a wide range of end market applications. These products, when used in the right powder coating formulation, determine the specific properties of formulated powder coatings, which are typically applied by electrostatic spray. To achieve the required powder coating system with the needed requirements, you just select the right **Uralac**® polyester resin and/or **Crelan**® isocyanate crosslinker. These solutions are developed to address direct market demands, and also future end-market needs. So, whether you need a powder coating that is easy to spray and creates less waste, or one that resists scratches and bumps endured in everyday life, our resins cater to your requirements. By combining high-performance products with outstanding environmental responsibility, we offer the best possible solutions for people today – and for generations to come.

Commitment to the powder coating market

Covestro has pioneered the powder coating industry since the 1960s. Today, we continue to be one of the global market leaders thanks to our ongoing commitment to our customers and their markets, our consistent resin quality, and environmental responsibility. Our high quality formulas and consistent processes ensure that you receive reliable and stable products that offer superior properties, including flexibility, hardness, durability, resistance to heat and chemicals, anti-corrosion, and transfer efficiency.

Globally, our proven product quality is matched by the high professional standards of our technically experienced team, who are dedicated to providing our customers with unique solutions to their formulating challenges. For over 50 years, we have fostered strong and valuable customer relationships, which have supported the development of products that time over time meet and exceed market requirements.

Sustainability as a key focus

At Covestro, we see sustainability not just as an opportunity, but as a long-term business focus. Every day, we are dedicated to the development of new powder coating solutions that help make the planet a cleaner place and reduced ecological impact. Over the past few years, we have developed unique powder coating resins that allow for lower curing temperatures, which result in a smaller carbon footprint, and will open the door to new applications for powder coatings. In addition, with powder coating solutions we can shift away from traditional solvent-based coating technologies.



In line with this market-oriented development approach, Covestro supplies a comprehensive product range, including:

- Outdoor resins for general industry, architectural, superdurable and hyperdurable applications
- Low-temperature or fast-curing resins
- Corrosion resistant resins
- Resins for good esthetics
- Resins for low gloss coatings (dry blends or one shot matte)
- Isocyanate curing hydroxyl resins
- TGIC, HAA and epoxy curing carboxylated resins
- Glycidyl ester curing carboxylated resins
- Food contact carboxylated resins
- Epoxy-free carboxylated indoor resins
- Value-engineered resins
- Carboxylated resins for heat-sensitive substrates
- Isocyanate crosslinkers



Resin development to address market trends

In order to keep on meeting evolving powder coating requirements across our global markets, we invest significantly in the development of our product portfolio. All of our product developments and improvements are focused on meeting specific market developments today and for the future. Our product portfolio supports a broad spectrum of market segments, that include a wide array of substrates from various metals and glass fiber pultrusions to heat-sensitive applications.



Covestro will grow the market for coatings with more sustainable solutions that match the needs of these market segments:

- Architectural
- Automotive
- ACE/heavy machinery
- Furniture
- General industry
- Domestic appliances
- IT

Thinking globally, acting regionally

With five manufacturing centers located in the Netherlands, Spain, the United States, Taiwan and China Mainland, as well as marketing and sales hubs on three continents, we are never far from your business. What's more, our technical team is able to leverage global expertise to deliver valuable advice for your particular business. So wherever you are, and whatever your market or application is, our team is there to support you. To find out more about our powder coating solutions, contact your Covestro Account Manager, your Technical Application Manager, or visit www.covestro.com.

Covestro Coating Resins product portfolio for powder coatings

Uralac® resins for low gloss coatings (dry blends)

HAA	Architectural	P 3223/ P 3228
		P 833/ P 870
		P 833/ P 2240
	Architectural+	P 833/ P 5500
	Superdurable	P 3233/ P 3238
TGIC	Architectural	P 4902/ P 2220
	Superdurable	P 800/ P 5588

Uralac® resins for low gloss coatings (one shot matte)

PUR	Superdurable	P 1625/ P 1675
HAA	Industrial	P 8014/ P 8019

Uralac® for superdurable powder coatings

HAA	Superdurable	P 3230
		P 3231
		P 3233
		P 3238
		P 5500
		P 5525
		P 7684, Corres
		P 800
		P 8000, Premium
		P 883
		P 885
		P 8855
TGIC	Superdurable	P 886
		P 3280
		P 3281
		P 5500
		P 5588
		P 6600
		P 6620
		P 6680
PUR	Superdurable	P 1550
		P 1580
		P 1625
		P 1675
		P 1680

Uralac® resins for low bake/fast cure

Hybrid 70/30	Indoor	P 3774, EasyCure
Hybrid 60/40	Indoor	P 6069, EasyCure
HAA	Indoor	P 3050, EnGain
		P 3250, EnGain
	Industrial*)	P 3214, EasyCure
		P 3220, EasyCure
		P 3229, EasyCure
	Architectural**)	P 3223/ P 3228, EasyCure
		P 3225, EasyCure
	Superdurable***)	P 3230, EasyCure
		P 3231, EasyCure
		P 3233/ P 3238, EasyCure
TGIC	Industrial	P 3291, EasyCure
	Architectural	P 3227, EasyCure
	Superdurable	P 3280, EasyCure
		P 3281, EasyCure

Uralac® Corres resins for good corrosion resistance

Hybrid	Indoor	P 7630
HAA	Industrial	P 7604
	Architectural	P 7610
	Superdurable	P 7684
TGIC	Industrial	P 7620

Uralac® resins for good blanching resistance

HAA	Architectural	P 8253
	Superdurable	P 8855

Uralac® Veranda resins for hybrid replacement

HAA	Industrial	P 541
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Uralac® resins for high pigment loading

Hybrid 60/40	Indoor	P 761
HAA	Architectural	P 780

Uralac® resins for food and drinking water applications


Hybrid 60 /40	Indoor	F 5340
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Uralac® CQ biobased and TMA free hybrid resin

Hybrid 50/50	indoor	P 500
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Uralac® Premium carboxylated resin for improved outdoordurability, flow and flexibility

HAA	Superdurable/ Hyperdurable	P 9000
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Uralac® Hitone
High loading acceptance and excellent flow.
Indoor polyesters.




Uralac® Hitone
High loading acceptance and excellent flow.
Outdoor polyesters.



Uralac®
Resins with excellent resistance to blanching.
Outdoor polyesters.




Uralac® EasyCure
Low temperature or fast cure.
Indoor polyesters.




Uralac® EasyCure
Low temperature or fast cure.
Outdoor polyesters.



Uralac® EasyCure
Low temperature or fast cure.
Outdoor dry blend matte polyesters.



Uralac®
One shot matte, isocyanate systems.
Outdoor polyesters.



Uralac®
One shot matte, HAA systems.
Outdoor polyesters.



Uralac® Corres
Corrosion protection.
Indoor & outdoor polyesters.

This overview gives the key properties of a broad selection of resins. The product specifications were correct at the time of printing but may change from time to time. We recommend that you contact your local Sales Office for comprehensive information on our full range of products.

*) General Industry (GI) = <1 year Florida exposure in RAL 8014 coating color
**) Architectural = >1 year Florida exposure in RAL 8014 and White coating colors
***) Superdurable = >3 years Florida exposure in RAL 8014 and White coating colors

Uralac® resins for HAA (β-Hydroxyalkylamide) cure

Carboxylated Powder Coating Resins	PRODUCT NAME	RATIO PE / HAA	SUITABLE FOR DRYBLEND	TRIBO*	ACID VALUE TM-2400	VISCOSITY TM-2727	Tg TM-2076	CURE CYCLE 160°C**		CURE CYCLE 200°C**		REMARKS
										CURE CYCLE 180°C**		
Industrial	Uralac® P 541, Veranda	96/4		•	26-30	17-47	56			12'		Epoxy free hybrids alternative, limited outdoor durability, excellent staining resistance
	Uralac® P 7604, Corres	96/4		•	26-30	25-65	58			15'		GI resin, Same corrosion protection as pre-treatment or epoxy primer
	Uralac® P 8014, OSM	96/4			24-26	26-48	60			10'		Low AV resin for OSM combination with Uralac® P 8019
	Uralac® P 8019, OSM	90/10			66-74	20-55	58			10'		High AV resin for OSM combination with Uralac® P 8014
Architectural	Uralac® P 833	97/3	•	•	19,5-22,5	36-96	62			10'		Low level HAA for architectural purpose, low gloss in dry blend formulation with Uralac® P 870
	Uralac® P 8282	96.4/3.6		•	23-27	10-50	56			15'		Architectural grade with excellent degassing properties and excellent flow/appearance properties
	Uralac® P 7610, Corres	96/4			26-30	40-70	62			15'		Architectural resin, Same corrosion protection as pre-treatment or epoxy primer
	Uralac® P 780, HiTone	95/5		•	34-38	12-32	56			15'	8'	Superior flow and high loading capacity; architectural type
	Uralac® P 865	95/5		•	33-37	12-32	56			10'		Good flow, architectural type
	Uralac® P 8253, Non-blanching	95/5		•	33-37	30-70	63			12'		Architectural grade with excellent resistance to blanching and increased flexibility
	Uralac® P 2240	93/7	•	•	51-56	75-115	69	10'		6'		Low temperature/fast cure for high Tg coatings, improved humidity resistance; can be used in matte dry blend systems with Uralac® P 833
	Uralac® P 870	93/7	•	•	50-54	30-55	58	15'		10'	6'	Low temperature architectural type, low gloss in dry blend formulation with Uralac® P 833
Superdurable	Uralac® P 5500	93/7	•		46-54	37-67	60			10'		Superdurable type, high HAA content, limited flexibility but good adhesion: can be used for dry blending low gloss with Uralac® P 800 or Uralac® P 833
	Uralac® P 5525	93/7			49-54	5-15	48			20'	10'	Superdurable type; good chemical resistance, extremely smooth
	Uralac® P 7684, Corres	96/4			26-30	10-50	61			15'		SD resin, Same corrosion protection as pre-treatment or epoxy primer
	Uralac® P 800	96/4	•	•	26-30	21-41	61			15'		Superdurable type, good water & chemical resistance: can be used for dry blending low gloss with Uralac® P 5500
	Uralac® P 8000, Premium	95/5			34-36	15-45	59			15'		Flexible superdurable specially designed for combination with Uralac® P9000 for an unique combination of outdoor durability, flow and flexibility
	Uralac® P 885	95/5		•	33-37	28-48	53			15'		Superdurable type, improved flexibility for superdurable grade
	Uralac® P 886	95/5			33-37	9-29	60			15'		Superdurable type, good flow and yellowing resistance
	Uralac® P 8855, Non blanching	95/5			33-37	15-55	60			12'		Superdurable type with excellent resistance to blanching
Superdurable/ Hyperdurable	Uralac® P 9000, Premium	93/7			46-50	0,1-2	MP = 85°C			NA	NA	Crystalline resin specially designed for combination with Uralac® P 8000 for an unique combination of outdoor durability, flow and flexibility

Uralac® EasyCure resins for low temperature HAA (β-Hydroxyalkylamide) cure

Carboxylated Powder Coating Resins	PRODUCT NAME	RATIO PE / HAA	SUITABLE FOR DRYBLEND	TRIBO*	ACID VALUE TM-2400	VISCOSITY TM-2727	Tg TM-2076	CURE CYCLE 160°C**		CURE CYCLE 180°C**		REMARKS
Industrial	Uralac® P 3214, EasyCure	95/5		•	31-35	20-60	58	10'		6'		Low bake / Fast cure, good flow, improved non blooming, high Tg grade
	Uralac® P 3220, EasyCure	93/7		•	50-54	12-32	55	12'		6'		Low bake / Fast cure, non blooming;
Architectural	Uralac® P 3223, EasyCure	97/3	•		18-22	85-125	55	12'		6'		Low level HAA architectural grade for low bake or fast cure, can be used for dry blending low gloss with Uralac® P 3228
	Uralac® P 3225, EasyCure	95/5			33-37	15-35	58	12'		6'		Low bake/ Fast cure, excellent flow, non blooming at cure, and architectural grade
	Uralac® P 3228, EasyCure	92/8	•		56-60	10-30	57	12'		6'		High level HAA architectural grade for low bake or fast cure, can be used for dry blending low gloss with Uralac® P 3223
Superdurable	Uralac® P 3233, EasyCure	97/3	•		18-22	40-80	57	12'		6'		Low level HAA superdurable grade for low bake or fast cure, can be used for dry blending low gloss with Uralac® P 3238
	Uralac® P 3230, EasyCure	93/7		•	50-54	20-30	50	12'		6'		Low bake, good flow, non blooming, superdurable type
	Uralac® P 3231, EasyCure	93/7		•	49,5-53,5	20-60	56	12'		6'		Low bake/ Fast cure, good flow, non blooming, superdurable type, higher Tg version Uralac® P 3230
	Uralac® P 3238, EasyCure	92/8	•		56-60	15-45	64	12'		6'		High level HAA superdurable grade for low bake or fast cure, can be used for dry blending low gloss with Uralac® P 3233

* Tribo chargeable when processed under controlled conditions

** Total oven time

This overview gives the key properties of a broad selection of resins. The product specifications were correct at the time of printing but may change from time to time. We recommend that you contact your local Sales Office for comprehensive information on our full range of products.

Uralac® resins for TGIC (Triglycidyl Isocyanurate) cure

Carboxylated Powder Coating Resins	PRODUCT NAME	RATIO PE / TGIC	SUITABLE FOR DRYBLEND	TRIBO*	ACID VALUE TM-2400	VISCOSITY TM-2727	Tg TM-2076	CURE CYCLE 160°C**		CURE CYCLE 200°C**		REMARKS
										CURE CYCLE 180°C**		
Industrial	Uralac® P 6103	94/6		•	28-32	23-53	60	15'		8'	4'	Fast or low curing resin with good non blooming properties
	Uralac® P 7620, Corres	93/7			32-37	55-95	70				10'	GI resin, Same corrosion protection as pre-treatment or epoxy primer
Industrial and architectural	Uralac® P 4902	94/6	•		30-34	35-75	62			15'	10'	Low level TGIC, suitable for dryblend matt with Uralac® P 2220
	Uralac® P 2400	93/7			32-38	45-65	68			20'	10'	Standard TGIC resin, good cure-flow balance, high Tg
	Uralac® P 2485	93/7			32-38	56-96	69				10'	Standard resin with good flow versus cure balance, high Tg and flexibility
	Uralac® P 3400	93/7			32-38	55-95	68				13'	Slow cure resin, very good flow, high Tg, economical resin
	Uralac® P 2220	90/10	•		49,5-53,5	30-55	58				8'	High cross-link density, good surface hardness, suitable for dryblend matt with Uralac® P 4902
Architectural	Uralac® P 5240	93/7			32-38	35-55	65				12'	Good flow-cure balance, high Tg and good exterior durability
	Uralac® P 6401	93/7		•	32-37	26-45	60			20'	10'	Excellent flow-cure balance and good exterior durability
	Uralac® P 6701	93/7		•	32-38	26-46	59	15'		10'	6'	Low temperature, fast cure combined with good flow, suitable for textured
Superdurable	Uralac® P 6600	93/7			30-36	25-65	58			15'	10'	Superdurable grade, with good flow-cure balance
	Uralac® P 6620	93/7			30-36	10-40	62				15'	Superdurable grade, high degassing limit with good flow
	Uralac® P 6680	93/7			31-35	25-75	63				10'	Superdurable grade, with good faster cure-flow balance
	Uralac® P 5500	90/10			46-54	37-67	60				15'	Superdurable type, high TGIC content, limited flexibility but good adhesion
	Uralac® P 5588	90/10	•	•	49-57	65-105	68			12'		Superdurable type, good edge coverage, suitable for dryblend matt with Uralac® P 800

Uralac® EasyCure resins for low or fast temperature TGIC (Triglycidyl Isocyanurate) cure

Carboxylated Powder Coating Resins	PRODUCT NAME	RATIO PE / TGIC	SUITABLE FOR DRYBLEND	TRIBO*	ACID VALUE TM-2400	VISCOSITY TM-2727	Tg TM-2076	CURE CYCLE 160°C**		CURE CYCLE 200°C**		REMARKS
										CURE CYCLE 180°C**		
Industrial	Uralac® P 3229, EasyCure	93/7			33-37	40-80	64	12'		6'	3'	Low bake, excellent flow, non blooming at cure, high Tg and industrial/architectural grade
	Uralac® P 3291, EasyCure	93/7		•	32-38	25-65	64	8'		5'	2'	Very fast curing TGIC resin
Architectural	Uralac® P 3227, EasyCure	93/7			33-37	15-45	60	10'		6'	3'	Low bake/Fast cure, excellent flow, non blooming at cure, and architectural grade
Superdurable	Uralac® P 3280, EasyCure	93/7			33-37	5-35	57	15'		10'		Low temperature, fast cure combined with good flow and good outdoor durability
	Uralac® P 3281, EasyCure	93/7			34-38	5-35	57	15'		10'		Low temperature, fast cure combined with excellent flow and good outdoor durability, high pigment loading

* Tribo chargeable when processed under controlled conditions
 ** Total oven time

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Uralac® resins for Isocyanate cure

Hydroxylated Powder Coating Resins	PRODUCT NAME	RATIO PE / NCO	ONE SHOT MATTE	TRIBO*	HYDROXY VALUE TM-2432	VISCOSITY TM-2727	Tg TM-2076	CURE CYCLE 160°C**		CURE CYCLE 200°C**		REMARKS
										CURE CYCLE 180°C**		
Industrial	Uralac® P 1620	85/15			24-32	90-150	65			10'		Industrial grade, suitable for wrinkle or alligator finish
	Uralac® P 1630	85/15			27-33	35-95	62			10'		Low OHV resin, excellent flow, good flexibility and good yellowing resistance
	Uralac® P 1535	80/20			35-43	23-43	57			15'		Very good flow and outdoor durability
	Uralac® P 1413	65/35			100-120	10-30	56		20'	10'		Industrial grade; excellent detergent and chemical resistance
Architectural and Industrial	Uralac® P 6504	80/20			35-45	42-62	64			10'		Robust industrial OH resin
	Uralac® P 5504	80/20			38-45	35-60	58			10'		Standard architectural with excellent flow
Superdurable	Uralac® P 1675, OSM	86/14	•		28-32	15-45	54			10'		Superdurable grade, low OHV resin, especially designed for One shot matte coatings with Uralac® P 1625
	Uralac® P 1680	85/15			25-35	10-30	55			15'		Superdurable grade, low OHV resin, especially designed for low crosslinker content and robust properties
	Uralac® P 1550	80/20			38-45	12-27	57			15'		Superdurable grade, especially designed for hyperdurable powder coating in combination with fluoropolymers
	Uralac® P 1580	70/30			75-90	8-28	52			15'		Superdurable type, anti-graffiti, very good flow, suitable for ACE
	Uralac® P 1625, OSM	45/55	•		220-240	15-45	51			10'		Superdurable grade, high OHV resin, especially designed for One shot matte coatings with Uralac® P 1675

Uralac® resins for Epoxy resin cure

Carboxylated Powder Coating Resins Polyester / Epoxy	PRODUCT NAME	SUITABLE FOR HSS	TMA-FREE		TRIBO*	ACID VALUE TM-2400	VISCOSITY TM-2727	Tg TM-2076	CURE CYCLE 160°C**		CURE CYCLE 200°C**		REMARKS
			SUITABLE FOR DRYBLEND							CURE CYCLE 180°C**			
70/30	Uralac® P 2450		•			32-38	55-95	67			15'	10'	Standard 70/30 hybrid, High Tg, good overbake resistance
	Uralac® P 3774, EasyCure		•			34-38	15-45	58		12'		6'	Fast cure, non-blooming, high flexibility
	Uralac® P 5030		•			32-38	17-35	55			15'	10'	Good flowing 70/30 resin, suitable for primer formulations
	Uralac® P 7630, Corres		•			34-38	20-60	55			12'		Hybrid resin, same corrosion protection as epoxy primer, good flexibility
	Uralac® P 772, HiTone		•			33-39	15-40	54			12'		Superior flow and high loading capacity
60/40	Uralac® P 4240, VEH		•		•	49,5-53,5	25-55	53			12'	10'	Good price performance resin for general purpose, good appearance
	Uralac® P 5040					52-58	20-40	57			10'	6'	Faster version of Uralac® P 6040 , good flow and suitable for high pigment loading
	Uralac® P 5042					52-58	20-40	57			12'	8'	Slow cure, excellent flow, industry standard
	Uralac® P 5061		•			47-55	22-44	55				12'	TMA-free 60/40 resin with robust coating properties
	Uralac® F 5340, Food grade					48-58	7-27	50			15'		Non-technical grade, slow cure and external catalyst needed, suitable for FDA applications, produced under GMP
	Uralac® P 6040					52-58	18-38	57			15'	8'	Slow cure, excellent flow, industry standard
	Uralac® P 6062				•	42-46	20-60	61			15'	10'	High Tg 60/40 resin with good flow and storage stability
	Uralac® P 6069, EasyCure				•	46-56	8-24	55		12'	10'	6'	Low temperature / fast cure with good flow
	Uralac® P 761, HiTone					52-58	18-37,5	57			15'	8'	Excellent flow, high loading capacity, suitable for thin film application
50/50	Uralac® P 2064					75-95	50-80	71			15'	10'	Highest Tg 50/50 resin; excellent surface hardness
	Uralac® P 3050, EnGain	•				70-85	20-50	67		3/150°C			High Tg grade for good storage stability, low or fast cure, Suitable for heat sensitive substrates
	Uralac® P 3250, EnGain	•				70-85	7-17	53		30/135°C & 6/160°C			Low bake, suitable for low temperature curing systems and heat sensitive substrates
	Uralac® P 4055, VEH					68-75	20-50	58				10'	Good price performance resin for general purpose, good appearance
	Uralac® P 500, CQ		•			69-79	10-40	59			12'		TMA-free 50/50 resin with 32% biobased raw materials and robust coating properties, external catalyst needed
	Uralac® P 5998					69-79	18-38	57				10'	Slow cure, excellent flow

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TM-2400 Acid value, mg KOH necessary to neutralise the acidic constituents in 1g polyester resin

TM-2432 Mg KOH necessary to neutralise the quantity of acetic acid required to react with the hydroxyl groups in polyester 1g resin

TM-2727 Viscosity at 160°C of PCR using the Brookfield CAP 2000+H Viscometer, reported in Pa.s

TM-2076 Glass transition temperature (°C), determined by differential scanning calorimetry at a heating rate of 5°C/min (DSC Mettler TA 3000)

TMA-free free from trimellitic anhydride (TMA)

Crelan® Isocyanate Crosslinkers

The Crelan® products from Covestro are a range of high – performance crosslinkers, used in polyurethane powder coatings.

The Crelan® isocyanates are used primarily in polyester/ polyurethane systems but also in Fluorocarbon polyurethane and OH-Acrylic/ polyurethane systems. The Crelan® products are manufactured in world – class facilities. They are available as small, almost colorless flakes which are easy to handle.

Crelan® product line for powder isocyanate crosslinkers

Crelan® Blocking agent – free crosslinker	AVAILABILITY			BASIS	NCO [%] (APPROX.)	EEW (APPROX.)	CURE CYCLE** (°C)	Tg-VALUE (°C)	REMARKS	
	EMEA	APAC	NMA							
EF 403	X	X	X	IPDI	13,5	310	10'-15' 200	40-55	This blocking agent – free crosslinker is based on uretdione chemistry. It emits neither blocking agents or water during the crosslinking reaction. When combined with suitable hydroxyl – bearing polyester resins, the low – melt viscosity of the hardener results in outstanding leveling, good outdoordurability, chemical resistance and gloss, in both clear and pigmented coatings. The EF 403 is very suitable for OSM-PU-systems.	
Crelan® Caprolactam – blocked crosslinkers	AVAILABILITY			BASIS	NCO [%] (APPROX.)	EEW (APPROX.)	CURE CYCLE** (°C)	Tg-VALUE (°C)	REMARKS	
	EMEA	APAC	NMA							
	VP LS 2256	X	X	X	IPDI	15,0	280	10'-15' 180	46-58	This product is a caprolactam – blocked aliphatic – based isocyanate. Coatings based on this product are characterized by their excellent flow properties, excellent outdoordurability and high gloss in combination with good anti – corrosive properties in both clear and pigmented coatings. VP LS 2256 is very suitable for OSM-PU-systems.
	NI-2			X	IPDI	13,3	315	10'-15' 190	50-70	This product is a caprolactam – blocked aliphatic – based isocyanate which provides coatings with smooth, wet – look appearance at low film builds. NI-2 is developed for powder coatings with an excellent flow and corrosion resistance.
NW-5	X	X	X	H12MDI	12,7	333	10'-15' 170	48-58	This product is based on H12MDI and provides the formulator with smooth, higher performing films that require a lower deblocking temperature. NW-5 is a more reactive isocyanate with an out standing performance in flexibility, outdoor durability chemical resistance and corrosion properties.	

** Total oven time, cure cycle is an indication and based on non catalysed resins, cure cycles can be shortend by the addition of a tin catalyst



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USA

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¹Please see the "Guidance on Use of Covestro Products in a Medical Application" document.
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