



Advanced Polymer Technologies for
Can and Coil



New innovations

Our business is all about improving people's lives. At DSM we want to make life brighter for people – today and in generations to come. We connect our unique skills in materials sciences to create solutions that nourish, protect, and improve performance. And contribute to a more sustainable world. This is reflected in how we approach the coatings business.

Brighter future

Some companies see sustainability as a challenge, but at DSM for coating resins we see it as an opportunity, with endless possibilities to work together for a brighter future. By exchanging ideas and collaborating openly, we are making a difference. Innovating to add value to people's lives, ensure profitability, and protect the planet.

Bright Science

Bright Science is at the heart of all we do in coatings. Based on our intimate knowledge of our markets and our deep materials science expertise across a wide range of applications. Our global network of industry specialists spend their working lives traveling the world and talking to customers and other players in the supply chains. Through these deep partnerships built on mutual trust, we create bespoke resins and technologies that enhance our customers' formulations and their customers' everyday experiences.

Brighter Living

This means Brighter Living for everyone. Now you can rest your wine glass on a beautifully lacquered coffee table without leaving a stain. Or apply mosquito spray before heading out into the sun, knowing it won't take the shine off your cabriolet's interior paint. That's the real beauty of Bright Science, brightening lives wherever and whenever it touches them.

DSM for coating resins

DSM has a dedicated division that draws upon its broad know-how and understanding of market and customer needs to develop innovative resin solutions that deliver the best performance in the coatings and graphic arts markets.

From our headquarters in the Netherlands, we provide resins for coatings and graphic arts markets around the globe. We support our customers with manufacturing sites in North America, Europe, and Asia. Our brand names are well known around the world, including NeoCryl™, NeoRez™, NeoPac™, NeoRad™, Hybrane™, Uralac™, Uralcon™, Urathix™, and Uradil™.

Customers rely on us for a unique range of tailor-made, sustainable solutions based on water borne, UV, powder, and solvent borne technologies. We are the largest producer of polyester resins in the world and one of the largest producers of specialty emulsions, ensuring a dependable supply of product that fits our customers' individual requirements. We have a dedicated focus on people, profit, and planet. As an example, we design resin systems with tomorrow's environmental requirements in mind, guided by our Product Stewardship principles, by an awareness of the need for continuity, and by a strong sense of responsibility. We have an outstanding sustainability record in specialty resins that we continue to improve each day.

Can and coil

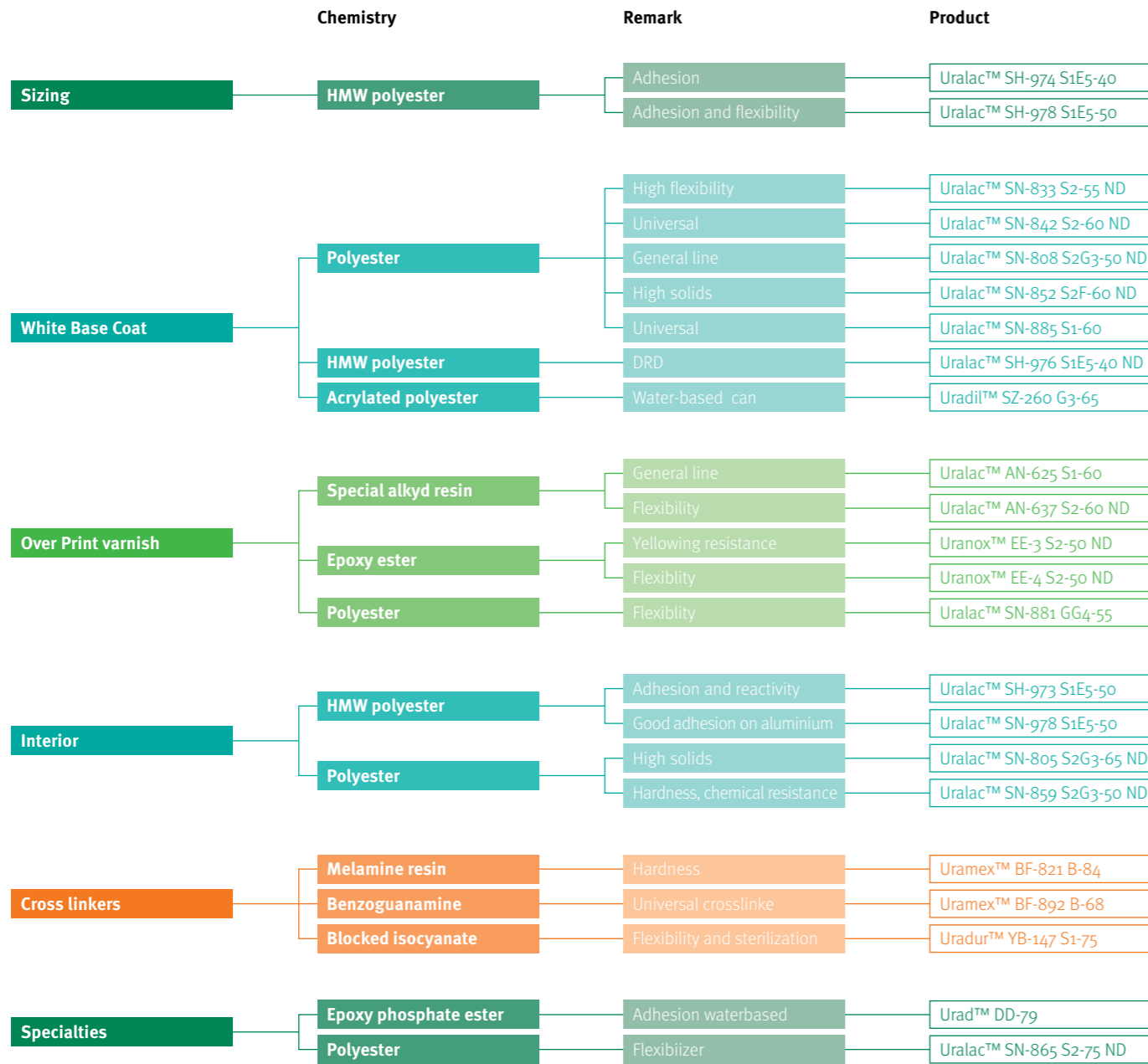
Based on our strong collaborative partnerships with customers and our unique understanding of materials science and applications, we provide creative solutions for Metal coating markets worldwide. Inspired breakthroughs that meet our customer's challenges and improve people's lives – now and for many generations to come.



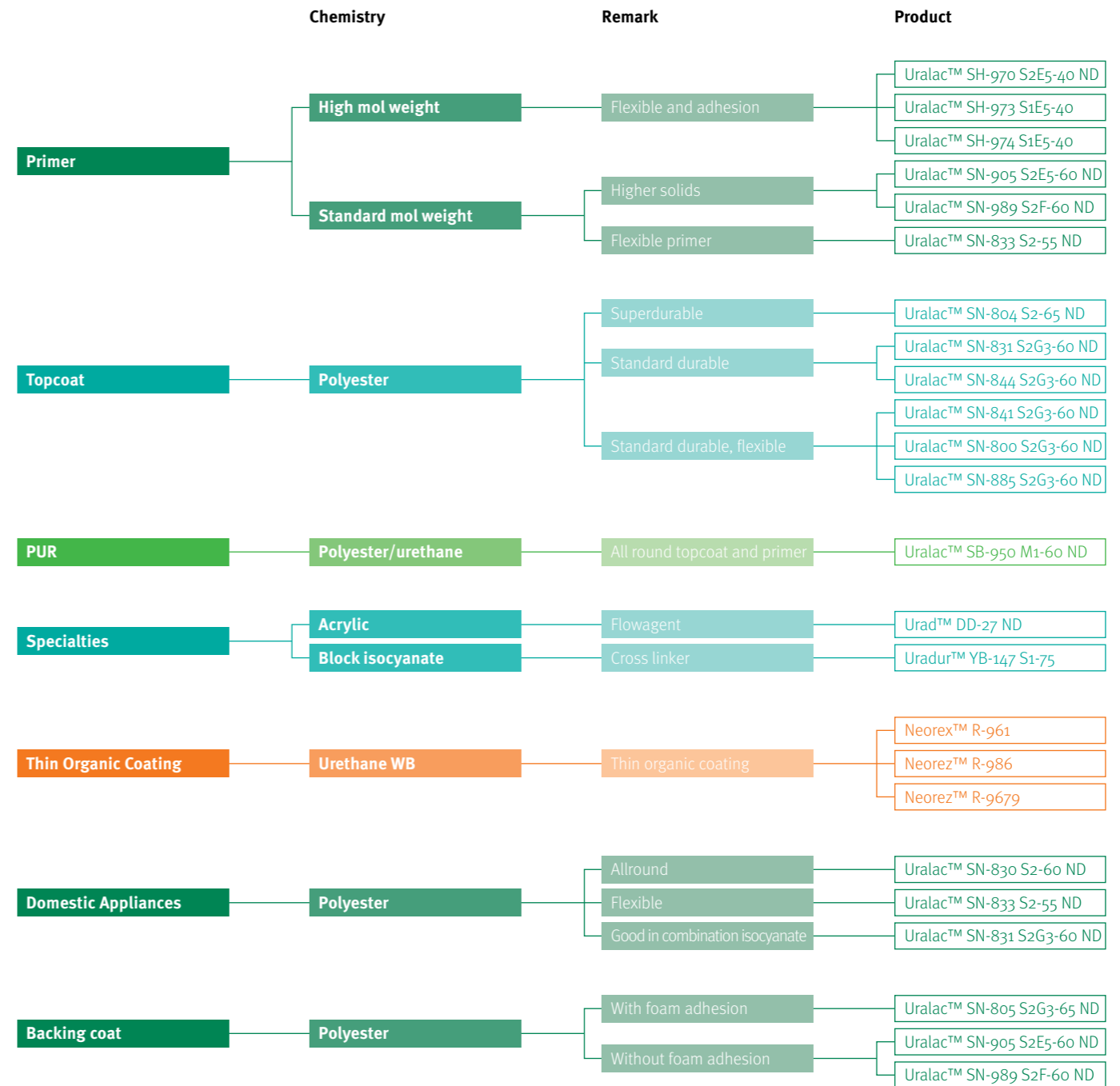
We have long expertise in the materials science, applications and value chain for the can and coil industry. It covers diverse resins based on water-borne and solvent-borne formulations to coat coils, and the inside and outside of cans. Our broad technology expertise spans polyesters, acrylics, alkyds, and urethane chemistries. Our customer partnerships allow us to efficiently develop new products and processes and improve existing ones to meet your toughest issues. For instance, a scratch proof, soft drink can that feels silky smooth. Building panels that cost less to produce and last longer to better protect homes and offices. Creating sustainable solutions is a key driver. Working together we can help you find alternatives for undesirable raw materials in can coatings, for example, or increase the yield of your coating on coil. So that you can add more value to your coating system and be more successful.



Product Selection Guide
Can Coating Resins



Product Selection Guide
Coil Coating Resins



Can

	Supply form	Solid content %	Viscosity (Pa.s) 23°C	Molecular Weight (Mn)	Tg (°C)	OH-value (approx)	Acid Value	Description	Main Features	Flexibility	Hardness	sterilization	wet on wet	Sizing	White base coat	Clear varnish	Interior cans	3-P cans & general line	Aerosols	Tubes	B&B cans
Solvent-borne saturated polyester and alkyd resins																					
Uralac™ AN-625 S1-60	S1	60	3.7-5.2	3000	0	86	5-10	Short oil alkyd resin based on saturated fatty acids for over print varnish	Yellowing resistance	2	5	5	5		000		000				
Uralac™ AN-637 S2-60 ND	S2-ND	60	2.5-4.0	4500	15	25	2-10	Short oil alkyd resin based on versatic acids for over print varnish	Flexibility	5	2	5	5		000		000				
Uralac™ SN-802 DS2-50 ND	DS2-ND	50	2.4-3.2	5000	45	50	2-5	Saturated polyester resin for over print varnish	Hardness	4	5	5	5		000		0	00			
Uralac™ SN-805 S2G3-65 ND	S2G3-ND	65	5.5-8.5	3000	0	110	4-8	Saturated polyester resin for general purpose	High solids	2	3	5	1		00		00	000			
Uralac™ SN-808 S2G3-50 ND	S2G3-ND	50	2.0-2.8	7000	24	40	2-5	Saturated polyester resin for white base coat	General Line	4	4	5	2		000		000				
Uralac™ SN-808 DS2-50 ND	DS2-ND	50	3.6-4.4	7000	24	40	2-5	Saturated polyester resin for over print varnish	General Line	4	4	5	4		000		000				
Uralac™ SN-825 M1-50 ND	M1-ND	50	4.2-5.6	6000	50	10	8-10	Saturated polyester resin for aerosols	Adhesion on aluminium	4	5	5	2		000	00		000			
Uralac™ SN-833 S2-55 ND	S2-ND	55	3.6-4.6	6000	32	21	3-5	Saturated polyester resin for flexible white base coat	Deep draw, flexibility	5	3	5	2		000		000	00			
Uralac™ SN-842 S2-60 ND	S2-ND	60	12.5-16.5	5500	25	25	5-10	Saturated polyester resin for general purpose	Flexibility, block resistance	5	3	5	3		000		000	00	000		
Uralac™ SN-852 S2F-60 ND	S2F-ND	60	4.5-6.5	4500	23	45	4-7	Saturated polyester resin for white base coat	Good compatibility	4	3	5	2		000		0	000			
Uralac™ SN-859 S2G3-50 ND	S2G3-ND	50	2.4-3.3	5500	70	45	0-5	Saturated polyester	Good adhesion on aluminium	4	5	5	2		0	000	000				
Uralac™ SN-881 GG4-55	GG4	55	1.1-1.3	4500	16	25	0-4	Saturated polyester resin for over print varnish	Flexibility, wet on wet	5	2	5	5				000				
Uralac™ SN-885 S1-60	S1	60	3.8-5.8	6000	29	20	1-4	Saturated polyester resin for white base coat	General line	4	3	5	2		000	0	00	000	0		
Uralac™ SN-905 S2E5-60 ND	S2E5-ND	60	9.5-13.5	5000	51	20	0-6	Saturated polyester resin for white base coat	Good adhesion on aluminium	3	4	4	1		00		000	0			
Uralac™ SN-908 S2E5-50 ND	S2E5-ND	50	1.8-2.6	5000	51	20	3-8	Saturated polyester resin for aerosols	Good adhesion on aluminium	3	5	5	1		0		0	000	0		
Uralac™ SH-970 S2E5-40 ND	S2E5-ND	40	3.5-4.5	15000	67	7	0-4	High molecular weight saturated polyester	High Tg and good compatibility	5	5	5	1	0			0	000			
Uralac™ SH-973 S1E5-40	S1E5	40	3.8-4.7	20000	65	7	8-10	High molecular weight saturated polyester	Reactive	5	5	5	1	0			000	000			
Uralac™ SH-974 S1E5-40	S1E5	40	2.9-3.5	15000	42	7	0-5	High molecular weight saturated polyester	Compatibility	5	4	5	1	00	00		0	0		0	
Uralac™ SH-976 S1E5-40	S1E5	40	3.5-4.5	15000	40	7	0-3	High molecular weight saturated polyester	Compatibility	5	4	5	1	000	00		0			0	
Uralac™ SH-978 S1E5-50	S1E5	50	6.8-8.8	10000	20	12	0-3	High molecular weight saturated polyester	Good porosity & flexibility	5	3	5	1	000			000	00			

Remark 1 = not good, 5 = excellent
0 = moderated recommended, 000 = strongly recommended

Can

	Supply form	Solid content %	Viscosity (Pa.s) 23°C	Molecular Weight (Mn)	Tg (°C)	OH-value (approx)	Acid Value	Description	Main Features	Flexibility	Hardness	sterilization	wet on wet	Sizing	White base coat	Clear varnish	Interior cans	3-P cans & general line	Aerosols	Tubes	B&B cans	
Water dilutable (Acrylated) saturated polyester resin																						
Uradil™ SZ-260 G3-65	G3	65	7-11	3000	21	40	57-63	Acrylic modified saturated polyester resin for B&B	Good flow	4	5				000	00					000	
Acrylic modified saturated polyesters																						
Uralac™ SC-890 S2G3-50 ND	S2G3-ND	50	0.8-1.0	3100	33	35	45-50	Acrylic modified saturated polyester resin	Good flow	4	5	4	2		000							000
Uralac™ SC-893 S2G3-65 ND	S2G3-ND	65	7.5-8.5	2700	20	17	42-48	Acrylic modified saturated polyester resin	Higher solids	3	4	4	2		000							000
Saturated polyester resin with blocked isocyanate																						
Uralac™ SB-924 M1-55 ND	M1-ND	55	2.3-2.9	5000	25	58	6-9	Saturated polyester resin with blocked isocyanate	Easy handling	5	4	5	3		00			00				
Epoxy esters																						
Uranox™ EE-3 S2-50 ND	S2-ND	50	18-28	6000	30		0-5	Epoxy ester resin for over print varnish	Good yellowing resistance	3	4	5	5			000		000				
Uranox™ EE-4 S2-50 ND	S2-ND	50	2.2-2.8	6000	0		0-4	Epoxy ester resin for over print varnish	Flexibility	4	3	5	5			000		000				
Uranox™ EE-7 S2G3-57 ND	S2G3-ND	57	3.4-4.1	5400	0		0-4	Epoxy ester for high solids over print varnish	Higher solids	3	3	5	5			000		000				
Cross linkers																						
Uramex™ BF-892 B	B	68	0.4-0.6					n-Butylated benzoguanamine formaldehyde resin, non plasticised	Benzoguanamine, general use	5	3	5		0	000	00	00	000	000	0	0	0
Uramex™ MF-821 B	B	84	10-15.5					n-Butylated melamine resin, non plasticised	Melamine resin	2	5	5			0	000	0	000	0			
Uradur™ YB-147 S1-75	S1	75	2-4					HDI blocked isocyanate cross linker	Blocked isocyanate	5	5	5		0	000	000		000	0			0
Specialties																						
Urad™ DD-79		73	7.0-10.0				45-55	Epoxy phosphate ester for waterbased coatings	Adhesion promoter water based	4	5	5			00	00					00	000
Uralac™ SN-865 S2-75 ND	S2-ND	75	6.0-7.0	4500	-17	22	3-7	Saturated polyester resin to obtain a more flexible coating	Flexibiliser	5	1	3	2	0	00			0	0			

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Coil

	Supply form	Solid content %	Viscosity (Pa.s) 23°C	Molecular weight (Mn)	Tg (°C)	OH-value(approx.)	Acid Value	Structure	Description	Main features	Substrate	Flexibility	Hardness	Weatherability	Topcoat exterior	Topcoat interior	Appliances	Primer	Backing coat
Solvent-borne resins																			
Uralac™ SH-970 S2E5-40 ND	S2E5-ND	40	3.5-4.5	15000	67	7	0-4	L	High Molecular Weight saturated polyester for primer coating	Corrosion protection	Steel, HDG	5	5	2		0	0	000	
Uralac™ SH-973 S1E5-40	S1E5	40	3.8-4.7	20000	65	7	8-10	SB	High Molecular Weight saturated polyester for primer coating	Corrosion protection	Steel, HDG	5	5	2		0	0	000	
Uralac™ SH-974 S1E5-40	S1E5	40	2.9-3.5	15000	42	7	0-5	L	High Molecular Weight saturated polyester for primer coating	Corrosion protection	Steel, HDG	5	5	2		0	0	000	
Uralac™ SN-905 S2E5-60 ND	S2E5-ND	60	9.5-13.5	5000	51	20	0-6	L	Saturated polyester for primer coating	Corrosion protection	Steel, HDG	3	4	2		0	0	000	00
Uralac™ SN-989 S2F-60 ND	S2F-ND	60	6.0-8.0	5000	51	23	1-4	L	Saturated polyester for primer coating	Corrosion protection	Steel, HDG	3	4	2		0	0	000	00
Uralac™ SN-800 S2G3-60 ND	S2G3-ND	60	4.0-5.0	6000	27	20	0-4	L	Saturated polyester resin for flexible topcoat	Good adhesion	Aluminium	5	3	3	000	00		0	
Uralac™ SN-804 S2-65 ND	S2-ND	65	4.2-4.7	3000	23	30	0-4	SB	Saturated polyester resin for topcoat superdurable	Superdurable	Steel, HDG, Aluminium	3	4	5	000	00			
Uralac™ SN-805 S2G3-65 ND	S2G3-ND	65	2.6-3.6	3000	0	110	4-8	B	Saturated polyester resin for topcoat with high reactivity and for back coating	High solid	Steel, HDG, Aluminium	2	4	4	00	0			000
Uralac™ SN-811 S2G3-60 ND	S2G3-ND	60	1.5-2.2	2500	-6	120	8-12	B	Saturated polyester resin for topcoat with high reactivity and for back coating	Low temperature	Steel, HDG, Aluminium	2	4	3	00	0			0
Uralac™ SN-830 S2-60 ND	S2-ND	60	4.0-4.7	4500	26	32	3-6	L	Saturated polyester resin for topcoat domestic appliances	Domestic appliance	HDG, Aluminium	4	4	4	000	0	000	00	
Uralac™ SN-831 S2G3-60 ND	S2G3-ND	60	2.7-3.6	5000	25	32	2-5	SB	Saturated polyester resin for topcoat	All round	Steel, HDG, Aluminium	4	4	4	000	0		00	
Uralac™ SN-833 S2-55 ND	S2-ND	55	3.6-4.6	6000	32	21	3-5	L	Saturated polyester resin for flexible topcoat and domestic appliances	Flexible	HDG, Aluminium	4	3	3	00	00	000	00	
Uralac™ SN-841 S2G3-60 ND	S2G3-ND	60	1.8-2.2	4500	18	30	0-1	L	Saturated polyester resin for flexible topcoat	Flex, aging, cold flex	HDG, Aluminium	4	3	3	000	00	0	0	
Uralac™ SN-844 S2G3-60 ND	S2G3-ND	60	2.8-3.2	4000	19	32	0-4	SB	Saturated polyester resin for topcoat	Allround	Steel, HDG, Aluminium	4	4	4	000	0		0	
Uralac™ SN-847 S1G3-70	S1G3	70	1.0-1.5	2500	-19	75	6-10	SB	Saturated polyester resin for high yield topcoat	High yield	Steel, HDG, Aluminium	3	2	3	00	00		0	0
Uralac™ SN-857 S1G3-70	S1G3	70	2.7-3.4	2500	8	50	2-5	L	Saturated polyester resin for high yield topcoat	High yield, flex	Steel, HDG, Aluminium	4	2	3	00	00			
Uralac™ SN-861 S1G3-60	S1G3	60	2.5-4.0	5000	6	23	0-5	SB	Saturated polyester resin for general purpose	Allround	Steel, HDG, Aluminium	3	4	3	000	0			
Uralac™ SN-865 S2-75 ND	S2-ND	75	6.0-7.0	4500	-17	22	3-7	L	Saturated polyester resin for blending to obtain a more flexible coating	Flexibilizer		5	1	3	0	0	0	0	0
Uralac™ SN-867 S2E5-60 ND	S2E5-ND	60	4.2-4.8	6000	-10	20	0-3	L	Saturated polyester resin for blending to obtain a more flexible coating	Flexibilizer		5	1	3	0	0	0	0	0

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Coil

	Supply form	Solid content %	Viscosity (Pa.s) 23°C	Molecular weight (Mn)	Tg (°C)	OH-value(approx.)	Acid Value	Structure	Description	Main features	Substrate	Flexibility	Hardness	Weatherability	Topcoat exterior	Topcoat interior	Appliances	Primer	Backing coat
Polyurethanes resin																			
Uralac™ SN-885 S2G3-60 ND	S2G3-ND	60	5,5-8,5	6000	29	20	0-4	L	Saturated polyester resin for flexible topcoat	Good adhesion	Aluminium	5	3	3	000	00		0	
Water-borne resins																			
Uralac™ SB-950 M1-60 ND	M1-ND	60	2,6-3,1	4000	9	32	0-4	SB	Saturated polyester resin with blocked isocyanate for topcoat and primers	Flexibility and high film thickness	HDG, Aluminium	4	4	4	000	0		0	
Uradil™ SZ-250 M1-40	M1	40	2,0-9,0	3000	31	40	50-55	B	Water-borne saturated polyesters for topcoat and primer applications	Corrosion protection		3	3	3	00	00		00	
Uradil™ SZ-251 G3Z-70	G3Z	70	2,7-3,5	900	-30	120	60	B	Water-borne saturated polyesters for topcoat applications	Weatherability		3	4	3	000	0		0	
Specialties resins																			
Urad™ DD-27 ND	S4B-ND	75	4,0-5,2						Acrylic resin	Levelling and anti-cratering agent					00	00	00		
Urad™ DD-50	B	75	1,5-3,5						Acrylic resin	Levelling and anti-cratering agent					00	00	00		
Uracron™ CR-250 X-50	X	50	1,5-3,5	11000	30	150	14-18		Thermosetting acrylic resin for PVDF applications to improve intercoat adhesion with the primer	PVDF Application	mixing resin PVDF				000	0			
Uradur™ YB-147 S1-75	S1	75							HDI blocked isocyanate cross linker						000	00	00	00	

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TOC -Urethane WB

	Supply form	Viscosity (mPa.s) @ 25°C	pH	Description	Main features	Thin organic coatings	Basecoat	Topcoat	Clearcoat	1K	1K stoving	2K	(Self)-linker	ACE	Automotive OEM	Car refinish	Commercial vehicles	General metal	Maintenance	Railway
Water-borne products																				
NeoRez™ R-960	Z-33 NMP	300	8,3	Aliphatic urethane dispersion with good balance of properties, frequently used as a blending resin	Thin Organic Coatings- Flexible and hard. Compatible with most acrylics	●		●	●	●				●				●	●	
NeoRez™ R-961	Z-34 NMP	300	8,0	Hard and flexible polyurethane dispersion for use in variety of applications.	Thin Organic Coatings- Hard, flexible, chemical and abrasion resistant. Elongation 270%, König hardness 130 sec. Water, humidity and UV resistant. Adhesion to metal and plastics such as PVC, ABS and PC	●		●	●	●								●		
NeoRez™ R-9679	Z-37 NMP	400	8,0	Aliphatic urethane used to formulate air dry coatings with excellent chemical and corrosion resistance	Thin Organic Coatings, Good corrosion resistance and low NMP	●	●	●	●	●				●	●			●	●	

Abbreviations	
B	n-butanol
D	di-aceton alcohol
E5	dibasicester
F	methoxypropylacetate
G	propyleneglycol monomethylether
G3	butylglycol
G4	dipropylene glycol monomethylether
M1	mixture of solvents
ND	naphthalene depleted
S1	solvent naphta 100
S2	solvent naphta 150 ND
S4	solvent naphta 200 ND
Z	water

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