

2020



SAPICI

▶▶ PRODUCT RANGE 2020 ▶▶

high performance polymers technology

POLURGREEN

Low Monomer Content Polyisocyanates

Exempted from the restriction proposal on diisocyanates under REACH Regulation.

product	% NV	type	solvent	type of isocyanate	% free monomer	% NCO	Vx.mPa*s @ 23°C	max gardner color	characteristics & main applications
POLURGREEN AD 01	75	adduct	EA	TDI	< 0.1	12.5 - 13.5	1200 - 3000	1	Polyurethane adduct for general purposes. Suitable for 2K varnishes and enamels. It imparts good flexibility, fullness, brightness and solvent resistance.
POLURGREEN AD BA 01	67	adduct	BA	TDI	< 0.1	11.5 - 12.1	400 - 800	1	Polyurethane adduct for general purposes. Suitable for 2K varnishes and enamels. It imparts good flexibility, fullness, brightness and solvent resistance.
POLURGREEN IR 01	50	isocyanurate	BA	TDI	< 0.1	7.7 - 8.1	700 - 1400	1	Fast drying hardener for 2K PU system with limited yellowing. Suitable for the formulation of sealers and matt topcoats it gives hardness to the final coating.
POLURGREEN 60T 01	60	adduct	BA	TDI	< 0.1	9.5 - 9.9	1200 - 2000	1	High versatile polyisocyanate used for the formulation of polyurethane sealers and topcoats. It gives the right balance between fast drying and long pot-life.
POLURGREEN OK 01	60	mixed isocyanurate	BA	TDI HDI	< 0.1 < 0.1	9.8 - 10.3	500 - 1100	1	Aromatic-aliphatic hardener with good yellowing resistance. Suitable for polishable varnishes and enamels give to the final coating excellent hardness and good elasticity.
POLURGREEN FP 75 01	75	adduct	EA	TDI	< 0.1	12.5 - 13.5	1200 - 3000	1	Polyurethane adduct version in accordance with EU, BFR and FDA regulations for food packaging.

POLURGREEN

Ultra Low Monomer Content Aliphatic Polyisocyanates



Exempted from the restriction proposal on diisocyanates under REACH Regulation.

product	% NV	type	solvent	type of isocyanate	% free monomer	% NCO	V _x mPa*s @ 23°C	max hazen color	characteristics & main applications
POLURGREEN MT 75 01*	75	aliphatic polyisocyanate	X PMA	HDI	< 0.1	16.0 - 17.0	50 - 200	< 40	Low monomer version of Polurene MT 75, aliphatic polyisocyanate with high toughness. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURGREEN MT 100 01*	100	HDI trimer	-	HDI	< 0.1	21.5 - 22.5	1800 - 3300	< 40	Low monomer version of Polurene MT 100, aliphatic trimer with high toughness. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURGREEN MT 100 LV 01*	100	HDI trimer	-	HDI	< 0.1	22.0 - 23.0	900 - 1500	< 40	Low monomer version of Polurene MT 100 LV, low viscosity version of the aliphatic trimer. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURGREEN MT 100 LLV 01*	100	HDI trimer	-	HDI	< 0.1	22.0 - 24.0	550 - 850	< 60	Low monomer version of Polurene MT 100 LLV, ultra low viscosity version of the aliphatic trimer. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURGREEN MT 90 01*	90	HDI trimer	BA N	HDI	< 0.1	19.1 - 20.5	400 - 700	< 40	Low monomer version of Polurene MT 90, aliphatic trimer with high toughness. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.

*Available for customization

POLURGREEN PRP

Ultra Low Free Monomer Prepolymers

Exempted from the restriction proposal on diisocyanates under REACH Regulation.

product	% NV	type	solvent	type of isocyanate	% free monomer	% NCO	Vx mPas	characteristics & main applications
POLURGREEN PRP 350 01*	100	aromatic	-	TDI	< 0.1	3.0 - 4.0	750 - 950 @ 40°C	Linear prepolymer with high elongation and tensile strength.
POLURGREEN PRP 450 01*	100	aromatic	-	TDI	< 0.1	4.0 - 5.0	840 - 1050 @ 40°C	Linear prepolymer with high elongation and tensile strength.
POLURGREEN PRP 750 01*	100	aromatic	-	TDI	< 0.1	7.0 - 8.0	6000 - 12000 @ 40°C	Linear prepolymer with high elongation and tensile strength.
POLURGREEN PRP 940 01	100	aromatic	-	TDI	< 0.1	8.9 - 9.7	4000 - 10000 @ 40°C	High NCO, low viscosity linear prepolymer for adhesives, elastomer and sealants formulation.
POLURGREEN PRP F 930 01	100	aromatic	-	TDI	< 0.1	8.8 - 9.7	10000 - 20000 @ 50°C	High NCO prepolymer for foams formulation.
POLURGREEN PRP 6050 01	100	aromatic	-	MDI	< 0.1	4.5 - 5.5	5000 - 15000 @ 40°C	Linear NCO terminated prepolymer for adhesives and sealants formulation.
POLURGREEN PRP 4041 01*	100	aliphatic	-	HDI	< 0.1	9.0 - 11.0	1500 - 3500 @ 40°C	Aliphatic prepolymer for applications where maximum yellowing resistance is needed.
POLURGREEN PRP 5500 01	100	aromatic	-	TDI	< 0.1	2.0 - 3.0	3500 - 8500 @ 23°C	Branched NCO terminated prepolymer for sealants formulation.

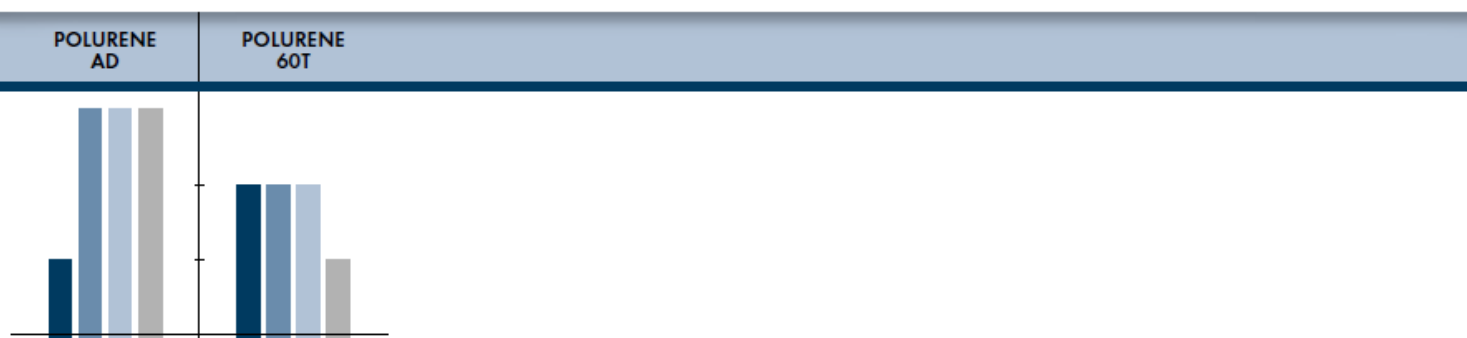
* Available also with standard monomer content <0.5

POLURENE

Aromatic Adducts

Polyurethane adducts with low free TDI content, for general purposes:
long pot life, high body filling, high gloss and high flexibility.
High compatibility with nitrocellulose, CAB, saturated polyesters, OH acrylic polyols and vinyl resins.

product	% NV	type	solvent	type of isocyanate	% free monomer	% NCO	Vx mPa*s @ 23°C	max gardner color
POLURENE AD	75	adduct	EA	TDI	< 0.5	12.5 - 13.5	1200 - 3000	1
POLURENE FP 75	75	adduct	EA	TDI	< 0.5	12.5 - 13.5	1200 - 3000	1
POLURENE AD 67	67	adduct	X PMA	TDI	< 0.5	10.8 - 11.8	1200 - 3000	2
POLURENE AD 67 BA LV	67	adduct	BA	TDI	< 0.5	11.5 - 12.3	400 - 800	1
POLURENE 60T	60	adduct	BA	TDI	< 0.5	9.5 - 9.9	1200 - 2000	1



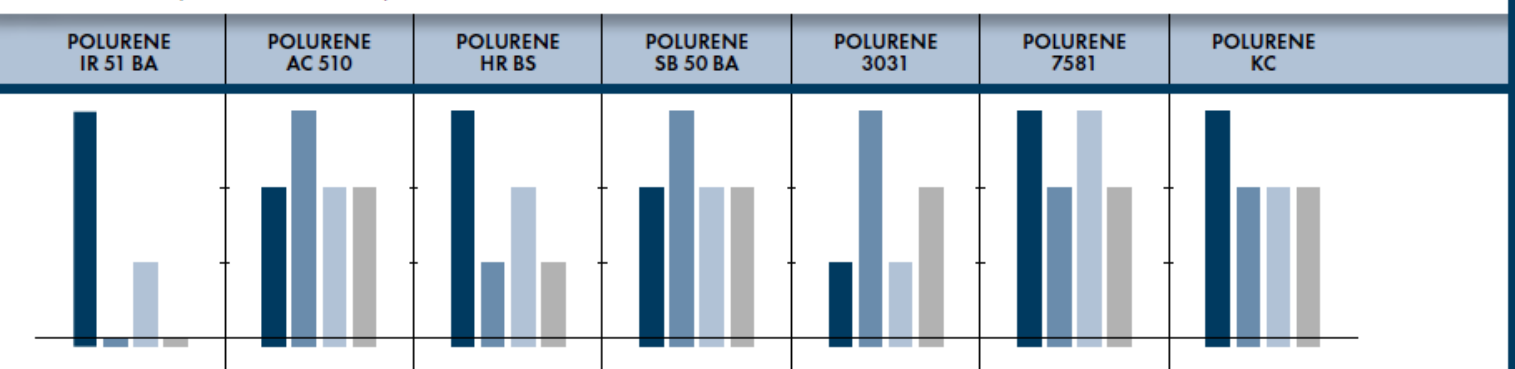
POLURENE

Aromatic Isocyanurates

Aromatic isocyanurates with low free TDI content: fast curing, high hardness, limited yellowing.
Suitable for the formulation of high quality sealers and topcoats.

product	% NV	type	solvent	type of isocyanate	% free monomer	% NCO	Vx mPa*s @ 23°C	max gardner color
POLURENE IR 51 BA	50	isocyanurate	BA	TDI	<0.5	7.8 - 8.2	700 - 1200	1
POLURENE IR 51 EA	50	isocyanurate	EA	TDI	<0.3	7.8 - 8.2	100 - 400	1
POLURENE AC 510	50	isocyanurate	BA	TDI	<1.0	7.0 - 7.4	50 - 300	1
POLURENE HRBS	50	isocyanurate	BA	TDI	<0.5	7.0 - 7.4	400 - 800	1
POLURENE SB 50 BA	50	isocyanurate	BA	TDI	<0.5	8.0 - 8.4	200 - 600	1
POLURENE 3031	50	isocyanurate	BA	TDI	<0.5	8.5 - 9.0	250 - 650	1
POLURENE 7581	50	isocyanurate	BA	TDI	<0.5	7.7 - 8.3	200 - 500	1
POLURENE IR 70 BA	70	isocyanurate	BA	TDI	<0.5	12.5 - 13.5	800 - 2000	1
POLURENE IR 65 EA	65	isocyanurate	EA	TDI	<0.5	11.1 - 11.5	250 - 450	1
POLURENE KC	50	mixed isocyanurate	BA	TDI MDI	<0.5	7.8 - 8.0	200 - 400	1

■ reactivity
 ■ po-life
 ■ fullness
 ■ NC compatibility



POLURENE

Aromatic Polyisocyanates MDI

product	% NV	type	solvent	type of isocyanate	% NCO	Vx mPas @ 23°C	max gardner color	characteristics & main applications
POLURENE MD 50 EA	50	prepolymer	EA	MDI	6.8 - 7.4	< 50	1	Polyisocyanate with high penetrability on porous substrate, it blocks the substances from the substrate and uniformize the adsorption for the overcoating. It improves adhesion on difficult substrate.
POLURENE MD 60 BA	60	prepolymer	BA	MDI	5.0 - 6.0	200 - 650	1	Polyisocyanate with high penetrability on porous substrate, it blocks the substances from the substrate and uniformize the adsorption for the overcoating. It improves adhesion on difficult substrate.
POLURENE MD 610	100	prepolymer	-	MDI	14.0 - 15.0	700 - 1400	3	Prepolymer for polyurea with excellent tear strength and high E-modulus.
POLURENE MD 1500	100	polyisocyanate	-	MDI	31.7 - 33.3	< 50	18	Polymeric MDI with excellent flexibility. Recommended for solvent free 2K PU coatings like self-levelings, synthetic mortars and adhesives. Fast drying and more flexible than POLURENE MD 1600.
POLURENE MD 1600	100	polyisocyanate	-	MDI	31.0 - 32.0	< 100	18	Polymeric MDI with excellent flexibility. Recommended for solvent free 2K PU coatings like self-levelings, synthetic mortars and adhesives.

POLURENE

Aliphatic Aromatic Isocyanurates

product	% NV	type	solvent	type of isocyanate	% free monomer	% NCO	Vx.mPa*s@23°C	max gardner color
POLURENE 2391	70	mixed isocyanurate	BA	TDI IPDI	< 0.5	11.7 - 12.0	800 - 1400	2
POLURENE OKD	60	mixed isocyanurate	BA	TDI HDI	< 0.5	10.0 - 10.4	500 - 1100	1
POLURENE OKD EA	60	mixed isocyanurate	EA	TDI HDI	< 0.5	10.0 - 10.4	100 - 400	1
POLURENE OKDS	60	mixed isocyanurate	BA	TDI HDI	< 0.5	10.0 - 11.0	1100 - 3300	1
POLURENE OK HP	60	mixed isocyanurate	BA	TDI HDI	< 0.5	9.3 - 10.3	200 - 500	1


 reactivity

pot-life

fullness

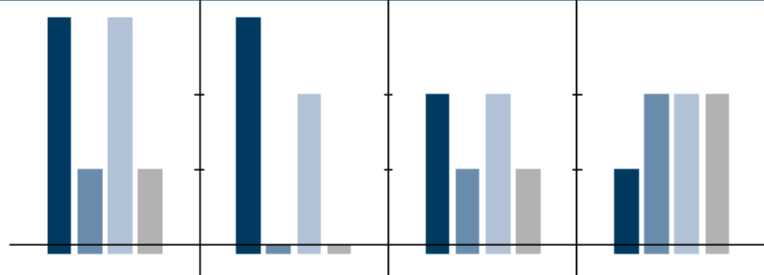
acrylic compatibility

POLURENE 2391

POLURENE OKD

POLURENE OKDS

POLURENE OK HD



POLURENE

Aliphatic Polyisocyanates

product	% NV	type	solvent	type of isocyanate	% free monomer	% NCO	Vx mPa·s @ 23°C	max hazen color	characteristics & main applications
POLURENE T 70	70	aliphatic polyisocyanate	BA	IPDI	< 0.5	11.8 - 12.2	800 - 1600	<80	Polyisocyanate trimer with high lightfastness and outdoor resistance. Suitable for the formulation of high demanding 2K PU coatings exhibits a good film formation.
POLURENE T 70 EA	70	aliphatic polyisocyanate	EA	IPDI	< 0.5	11.0 - 13.0	200 - 600	<80	Polyisocyanate trimer with high lightfastness and outdoor resistance. Suitable for the formulation of high demanding 2K PU coatings exhibits a good film formation.
POLURENE M 75	75	aliphatic polyisocyanate	X PMA	HDI	< 0.38	16.0 - 17.0	150 - 310	<40	Aliphatic biuret with high flexibility. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURENE M 75 BA	75	aliphatic polyisocyanate	BA	HDI	< 0.38	16.0 - 17.0	150 - 300	<40	Aliphatic biuret with high flexibility. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURENE M 75 PMA	75	aliphatic polyisocyanate	PMA	HDI	< 0.38	16.2 - 16.8	175 - 325	<40	Aliphatic biuret with high flexibility. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURENE MT 75*	75	aliphatic polyisocyanate	X PMA	HDI	< 0.15	16.0 - 17.0	50 - 200	<40	Aliphatic polyisocyanate with high toughness. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURENE MT 100*	100	HDI trimer	-	HDI	< 0.15	21.5 - 22.5	2000 - 3000	<30	Aliphatic trimer with high toughness. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURENE MT 100 LV*	100	HDI trimer	-	HDI	< 0.15	22.0 - 24.0	900 - 1500	<40	Low viscosity version of the aliphatic trimer. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURENE MT 100 LLV*	100	HDI trimer	-	HDI	< 0.15	22.0 - 24.0	550 - 850	<60	Ultra Low viscosity version of the aliphatic trimer. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURENE MT 90*	90	HDI trimer	BA N	HDI	< 0.15	19.1 - 20.5	400 - 700	<40	Aliphatic trimer with high toughness. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.
POLURENE MT 90 BA*	90	HDI trimer	BA	HDI	< 0.15	19.1 - 20.5	300 - 700	<40	Aliphatic trimer with high toughness. Suitable for the formulation of no yellowing 2K PU coating and stoving enamel.

*Available for customization

BLUEPUR

Polyurethane Waterborne Dispersions

product	% NV	type of isocyanate	solvent	Vx mPa*s @ 23°C	pH	characteristics & main applications
BLUEPUR 2937	35.5	aliphatic	coalescent free	250 max	7.0 - 9.0	Resin for application in 1K and 2K waterborne system. This resin have a self crosslinking beavhiour that confer high hardness. Very fast drying. It can be used to formulate transparent and pigmented coating.
BLUEPUR 3037	38	aliphatic	coalescent free	500 max	7.0 - 8.0	Resin for application in 1K and 2K waterborne system. This resin have a self crosslinking beavhiour that confer high hardness. The high flexibility of the resin let it suitable for the formulation of coating for metal and plastic.
BLUEPUR 3070	40	aliphatic	coalescent free	200 max	7.0 - 9.0	Tough and flexible. Good abrasion resistance. Good adhesion on plastic and metal beside wood and porous substrate. High lightfast resistance. Main application plastic and wood coating.
BLUEPUR 3080	40	aliphatic	coalescent free	500 max	7.0 - 8.0	Resin for application in 1K and 2K waterborne system. It's special structure let the possibility to use this resin for coalescing aid with PUD and acrylic emulsion. The high elasticity let it suitable for the formulation of coating for metal and plastic.

BLUEPUR T

Polyurethane Waterborne High Elasticity Dispersions

product	% NV	type of isocyanate	solvent	tensile strength MPa	% elongation at break	100% elongation modulus MPa	Vx mPa*s @ 23°C	pH	characteristics & main applications
BLUEPUR T 52	50	aliphatic	coalescent free	35	750	2.5	< 200	7.0 - 9.0	PUD with good soft-handle. It exhibits excellent hydrolysis and alkali resistance. It shows good mechanical properties, high tensile strength, high elongation at break and good modulus.
BLUEPUR T 53	43	aliphatic	coalescent free	30	600	3.5	< 500	7.0 - 9.0	Good adhesion on different substrate. It exhibits good rub resistance at low temperature. It shows good mechanical properties, high tensile strength, high elongation at break and good modulus.

HYDRORENE

Hydrodispersible Polyisocyanates

product	% NV	type of isocyanate	solvent	% NCO	Vx mPa*s @ 23°C	characteristics & main applications
HYDRORENE AW 1	100	aliphatic	free	16.0 - 18.0	2000 - 4000	High dispersibility isocyanate for the formulation of 2K waterborne varnishes with good chemical and abrasion resistance.
HYDRORENE AW 4	100	aliphatic	free	20.0 - 21.0	1000 - 3000	High dispersibility isocyanate for the formulation of 2K waterborne varnishes with good body filling and gloss.
HYDRORENE AW 5	100	aliphatic	free	15.5 - 16.5	5000 - 9000	2K waterborne varnishes with excellent chemical and abrasion resistance. Suitable for acrylic and PU waterborne systems. Recommended in high gloss topcoat.

HYDRORENE 01

Low Monomer Content Hydrodispersible Polyisocyanates

product	% NV	type of isocyanate	solvent	% free monomer	% NCO	Vx mPa*s @ 23°C	characteristics & main applications
HYDRORENE AW 1 01	100	aliphatic	free	< 0.1	16.0 - 18.0	2000 - 4000	Low free monomer version of HYDRORENE AW 1.
HYDRORENE AW 4 01	100	aliphatic	free	< 0.1	20.0 - 21.0	1000 - 3000	Low free monomer version of HYDRORENE AW 4.
HYDRORENE AW 6 01	100	aliphatic	free	< 0.1	22.0 - 24.0	550 - 850	High dispersibility and hydrophobicity low viscosity polyisocyanate for the formulation of 2K waterborne varnishes with good chemical and abrasion resistance.

UCOPOL

Moisture Curing Polyurethanes

product	% NV	type	solvent	type of isocyanate	% free monomer	% NCO	Vx mPa*s @ 23°C	max gardner color	characteristics & main applications
UCOPOL M 505	53	prepolymer	EA BA	TDI	< 0.5	4.4 - 5.2	< 50	1	Ready to use. Excellent flexibility. Coating for wood, plastic, concrete, rubber, textile and leather.
UCOPOL M 33 60	60	prepolymer	X PMA	TDI	< 0.5	5.5 - 6.5	250 - 500	1	Fast curing. Excellent hardness. Coating for parquet.
UCOPOL M 33 60 PMA	60	prepolymer	PMA	TDI	< 0.5	5.5 - 6.5	250 - 450	1	Fast curing. Excellent hardness. Coating for parquet.
UCOPOL M 34 60 LV	60	prepolymer	X PMA	TDI	< 0.3	6.8 - 7.8	800 - 1600	1	Abrasion resistance. Good balance between hardness and flexibility. Coating for parquet.
UCOPOL M 4054	60	prepolymer	X PMA	TDI	< 0.5	6.25 - 6.75	250 - 750	2	Hardness and good brightness. Coating for parquet and plastic.
UCOPOL M 2851	60	prepolymer	X PMA	TDI	< 0.5	5.0 - 6.0	600 - 1200	1	Adhesion. Coating for parquet, metal and plastic.
UCOPOL W 708	65	prepolymer	X PMA N	HDI	< 0.5	10.0 - 11.0	300 - 700	2	Yellowing resistance. High chemical and weather resistance. Coating for wood, plastic, concrete and metal.
UCOPOL M 601	100	prepolymer	-	MDI		22.0 - 24.0	< 200	18	1K Primer for concrete solventless and odourless. Ready to use product with good wettability and penetration into the substrate. Shorter cross-linking time than UCOPOL M 602.
UCOPOL M 602	100	prepolymer	-	MDI		22.0 - 24.0	< 200	18	1K Primer for concrete solventless and odourless. Ready to use product with good wettability and penetration into the substrate.
UCOPOL M 621	100	prepolymer	-	MDI		15.0 - 17.0	4500 - 7500	18	It can be used as impregnating agent of porous substrate as cement screed. It can also be used as a binder in the formulation of solvent-free moisture curing one-component adhesives or in combination with polyols for the formulation of 2K sealants. It has excellent adhesion on different substrate, e.g. wood, metal and plastic.

POLURENADD

Additives

product	characteristics & main applications
POLURENADD PTSI	Moisture scavenger for 1K and 2K polyurethane coatings, it reacts quickly with residual moisture trapped in formulation step (mixing and filler addition).

INKS

Polyisocyanates, Polyesters and Polyurethanes for Inks

Inks Modifiers

product	% NV	solvent	V _x mPa*s @ 23°C	characteristics & main applications
POLURENE 5870 K	75	EA	1300 - 2300	Soft polyurethane plasticizer to be used in the formulation of flexo and gravure solvent based NC-PU inks. Excellent compatibility with pigments and NC resins, good solvent release and jaw properties, and high solubility in alcohols and ethyl acetate.
POLURENE 5580 K	75	EA	2200 - 3600	Medium hard polyurethane plasticizer to be used in the formulation of flexo and gravure solvent based NC-PU inks. Characterized by good thermal resistance, high adhesion on polyolefinic substrates and solubility in alcohols and ethyl acetate.
POLURENE 0780 K	55	EA EtOH	1000 - 2500	Film-forming, aliphatic polyurethane resin to be used in the formulation of flexo and gravure NC-PU, PVB-PU and full-PU solvent based inks. Characterized by good printing quality even in high speed processes and higher adhesion compared to plasticizer PUs.

Polyisocyanates

product	% NV	solvent	V _x mPa*s @ 23°C	% NCO	characteristics & main applications
POLURENE FP 75 K	75	EA	1200 - 3000	13.0	Aromatic polyisocyanate to be used in 2K inks as hardener or/and adhesion promoter. When used in 2K over print varnish, POLURENE FP 75 K is recommended to impart elastomeric properties.
POLURENE IR 51 K	50	EA	100 - 400	8.0	Aromatic polyisocyanate to be used in the formulation of fast curing 2K overprint varnish. POLURENE IR51 K is recommended to impart crystalline properties to the varnish.
POLURENE OK K	60	EA	100 - 400	10.2	Aliphatic-aromatic polyisocyanate to be used in the formulation of fast curing 2K overprint varnish. POLURENE OK K is recommended for high gloss system.

Low Monomer Polyisocyanates

product	% NV	solvent	V _x mPa*s @ 23°C	% NCO	characteristics & main applications
POLURGREEN FP 75 01 K	75	EA	1200 - 3000	13.0	Low monomer version of POLURENE FP 75K.
POLURGREEN IR 51 01 K	50	EA	400 - 1000	7.4	Low monomer version of POLURENE IR 51K.
POLURGREEN OK K 01	60	EA	350 - 850	10.0	Low monomer version of POLURENE OK K.

glossary

isocyanates

HDI	HEXAMETHYLENE DIISOCYANATE
IPDI	ISOPHORONE DIISOCYANATE
MDI	DIPHENYLMETHANE DIISOCYANATE
TDI	TOLUENE DIISOCYANATE
TPTI	TRIS (P-ISOCYANATOPHENYL) THIOPHOSPHATE

diluent

BA	BUTYL ACETATE
DOA	DIOCTYL ADIPATE
EA	ETHYL ACETATE
EtOH	ETHANOL
IB	iso-BUTANOL
N	SOLVesso 100
MEK	METHYL ETHYL KETONE
PMA	METHOXYPROPYLACETATE
WD	D40 WHITE SPIRIT
X	XYLENE

notes

N.A. max	Acid Number
N° OH	Hydroxyl Number MG/KOH
% OH	Hydroxyl Percentage
% NCO	Nco
% NV	Non Volatile
TYPE	Type of Product
Vx mPa*s @ 23 °C	Viscosity at 23°C
NB: All specifications refer to the delivery form	



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