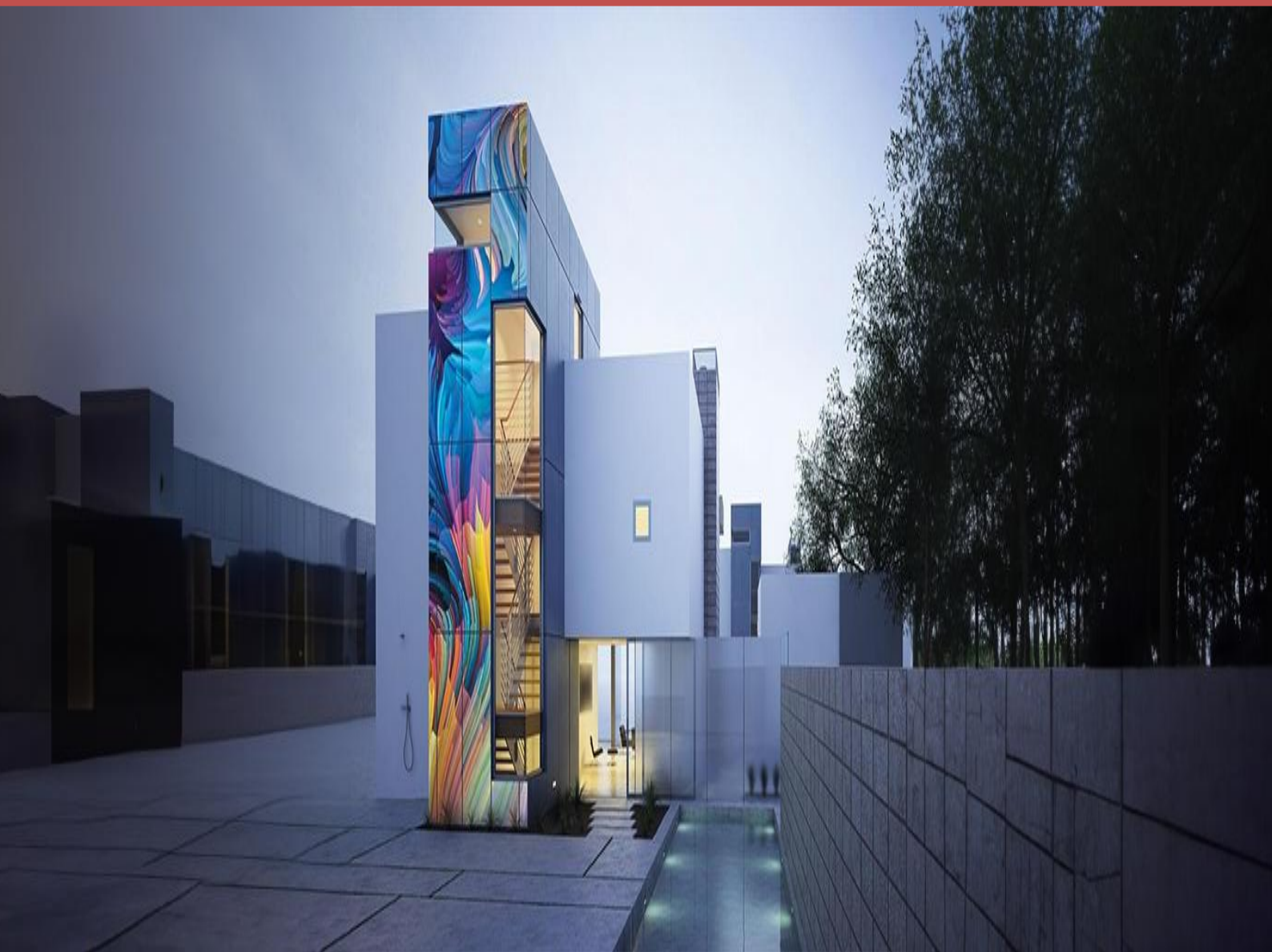


COIL COATINGS

HIGH-QUALITY RESINS & ADDITIVES

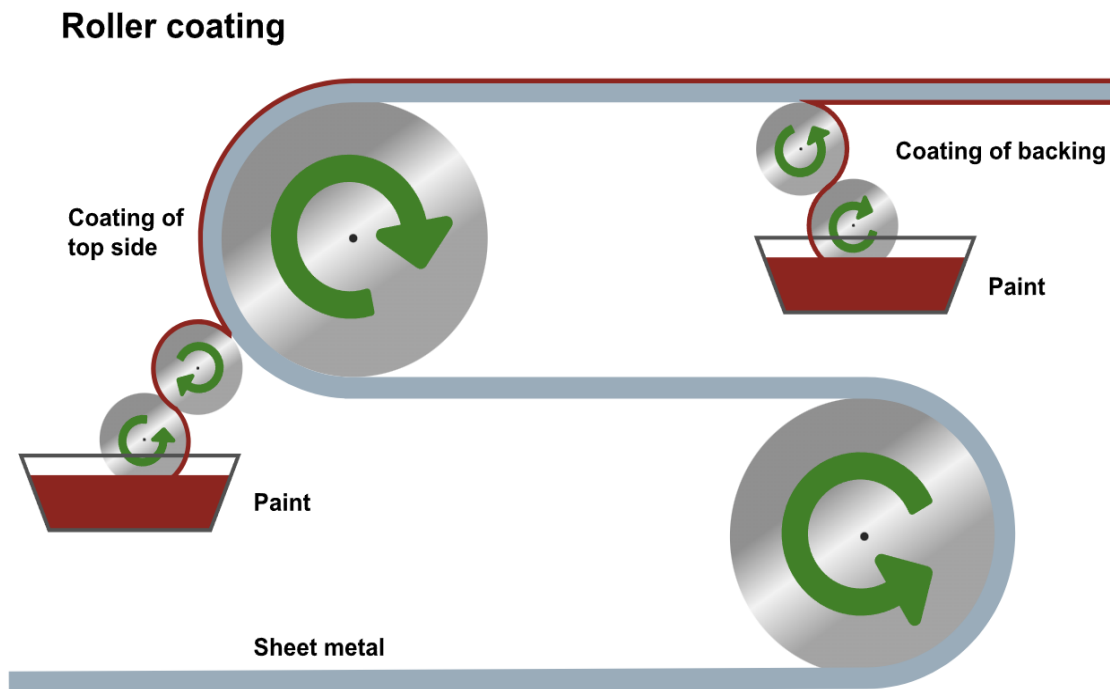
for any of your challenges.

“Reliable Solutions for the Coil Coating Industry”



COIL COATING

PRODUCTS WITH PERSPECTIVE



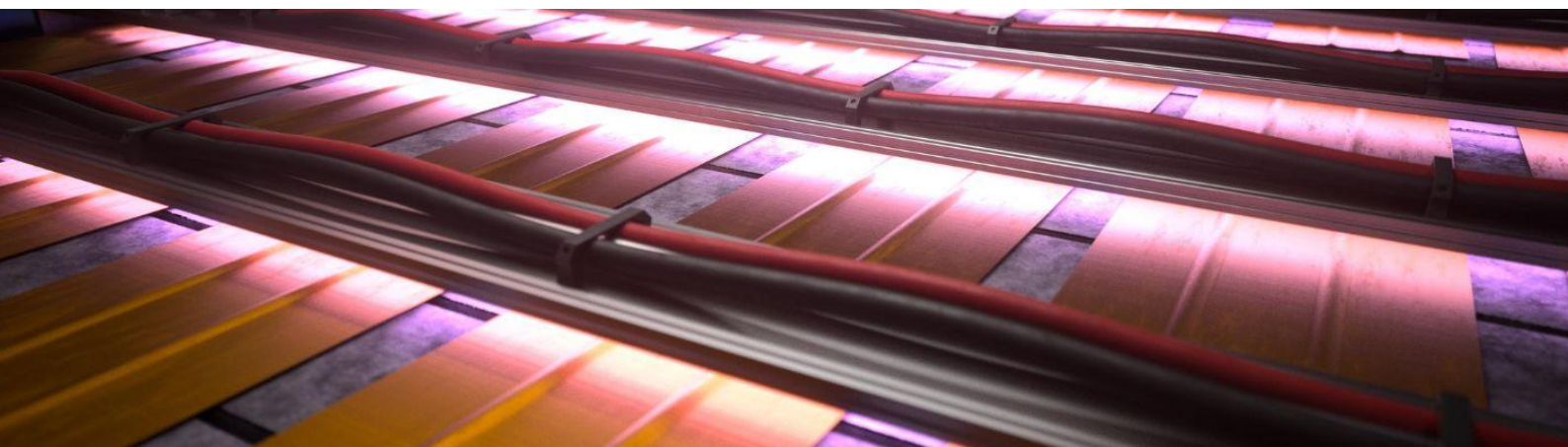
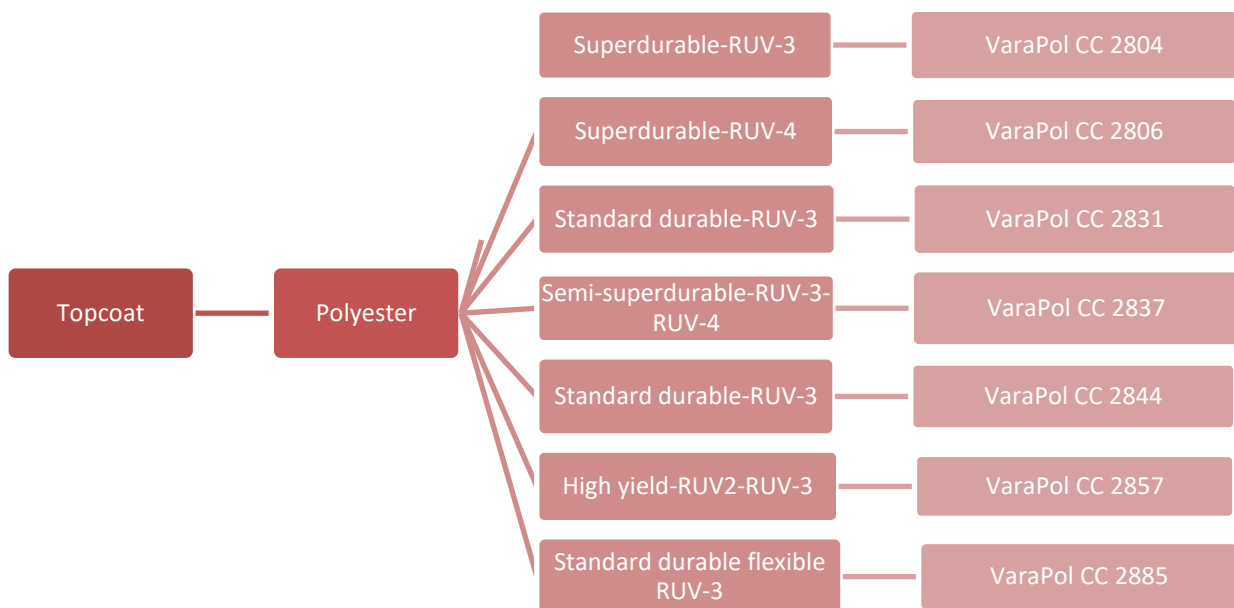
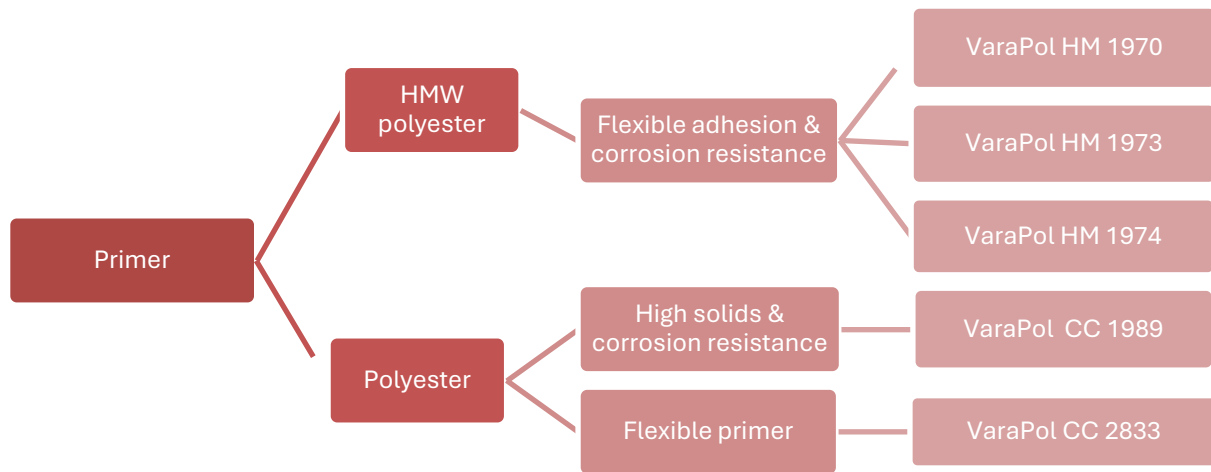
Performance Expectations for high quality and UV-Durable Coil Coatings

Our wide range of MM / HM saturated and saturated modified polyester resins includes solvent based and water-born binders for high quality coil coating primers, backers, topcoats and monocoats.

Coil coating is a special industrial process and most notably highly automated and continuous. In this form of coating, metal is pretreated which means that the coating is applied before it gets cut or formed thus allowing for firmly adhering and bonding finishes. Furthermore, coil coated metal can be far more resistant to corrosion and more durable due to these perfectly tight coatings. Most of the time, formed metal parts tend to have holes, valleys or recessed areas that make them hard to postcoat evenly – that is why precoating is the go-to process for non-stop productions and where highly durable coatings are required. However, coil coatings also require a great flexibility property.

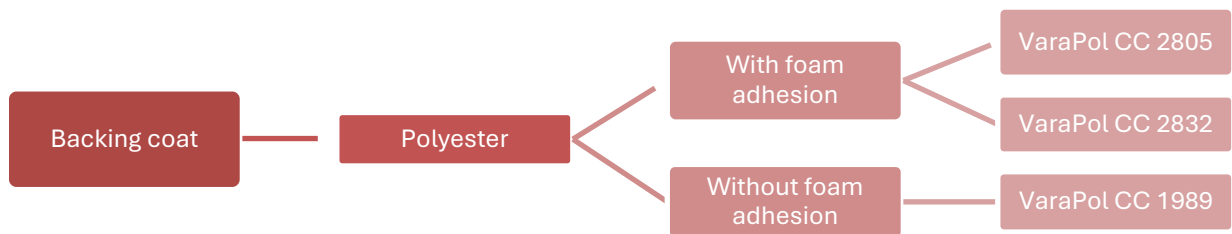
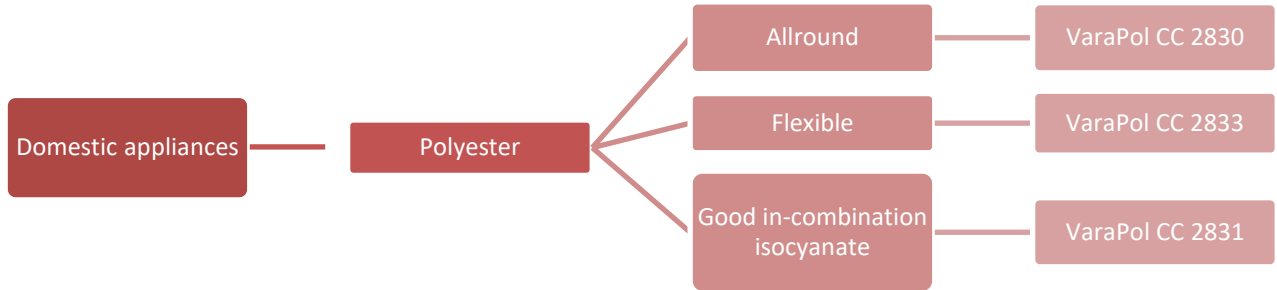
COIL COATING

PRODUCTS WITH PERSPECTIVE



COIL COATING

PRODUCTS WITH PERSPECTIVE



PRODUCTS WITH PERSPECTIVE

PRODUCTS WITH PERSPECTIVE



COIL COATING

PRODUCTS WITH PERSPECTIVE

VaraPol; SATURATED SOLVENT-BASED HM POLYESTER

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Acid Value [mg KOH/g]	Tg [°C]	Mn	OH-Value [mg KOH/g]	Description
HM 1970	40 in S1/E5	3500 - 4500	0 - 4	67	15000	7	High molecular weight polyester resin, BPA-NI, flexibility, adhesion on HDG and aluminium, corrosion resistance, conform to FDA approved.
HM 1971	50 in S2/F	3000 - 5000	0 - 3	67	15000	10	High molecular weight polyester resin, BPA-NI, flexibility, adhesion on HDG and aluminium, corrosion resistance.
HM 1973	40 in S1/E5	3800 - 4700	8 - 10	65	20000	7	High molecular weight polyester resin, BPA-NI, flexibility, adhesion on HDG and aluminium, corrosion resistance, conform to FDA approved for interior cans.
HM 1974	40 in S1/E5	2900 - 3500	0 - 5	42	15000	7	High molecular weight saturated, BPA-NI, polyester. Good porosity & flexibility
HM 1976	40 in S1/E5	3500 - 4500	0 - 3	40	15000	7	High molecular weight saturated, BPA-NI, polyester. Good porosity & flexibility and compatibility.
HM 1978	50 in S1/E5	6800 - 8800	0 - 3	20	10000	12	High molecular weight saturated. BPA-NI, polyester. Good porosity & flexibility. For interior can coatings. conform to FDA approved for interior cans.



VaraLite W; WATERBORNE MODIFIED POLYESTER RESIN

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Acid Value [mg KOH/g]	Tg [°C]	Mn	OH-Value [mg KOH/g]	Description
W 2250	M-40	2000 - 9000	50 - 55	31	3000	40	Acrylic modified saturated polyester resin; waterborne, for topcoats and primers.

COIL COATING

PRODUCTS WITH PERSPECTIVE

VaraPol; LIQUID POLYESTER RESINS

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Acid Value [mgKOH/g]	Tg [°C]	Mn	OH-Value [mg KOH/g]	Description
CC 1865	65% in S1/IB	2400 – 3000	≤ 5,5	8	2300	89	Branched polyester for coil coatings, can coatings and general industrial coatings with very good weather stability. VARAPOL E 1865 is conform to FDA § 175.300.
CC 1829	66 % in S1/BG	900 – 1400	≤ 6	12	4500	59	VaraPol CC 1829 S1BG-66 is cost effective, general purpose polymer, fast curing at high line speed, good flexibility, good durability, good flow and gloss. Recommended for general purpose coil and metal packaging coatings.
CC 1849	65% in S1/BG	1500 – 2500	≤ 10	5	4500	50	VaraPol CC 1849 S1/BG-65 is an oil free saturated polyester recommended for cost effective backers & exterior coil and metal packaging coatings with good adhesion to PU foam.
CC 1852	55% in S2/BG	2000 – 4000	≤ 3	32	6000	20	VaraPol CC 1852 S2BG-55 is commended for deep drawable, sterilizable stamping enamels for can coatings, tube and aerosol can coatings (metal decorating enamels) twist off closures; coil coating primers for aluminium and one coat-systems for aluminium, topcoats for interior architecture, vehicle cladding and home appliances.
CC 1832	65% in S2/BG	2200 – 3500	≤ 3	17	5000	33	VaraPol CC 1832 S2/BG-65 is linear saturated polyester with medium molecular weight. Recommended in combination with amino or crosslinking polyurethane systems for exterior topcoats coil coating, industrial stoving enamels, which offer supper UQV-A stability and super durability.
CC 1822	70% in S1	3000 – 4000	≤ 15	15	3300	85	VaraPol CC 1822 is high solid, high reactive saturated polyester resin. In combination with amino or crosslinking baking urethane for coil coatings enamels and specific for coil coating corrosion protection primers..

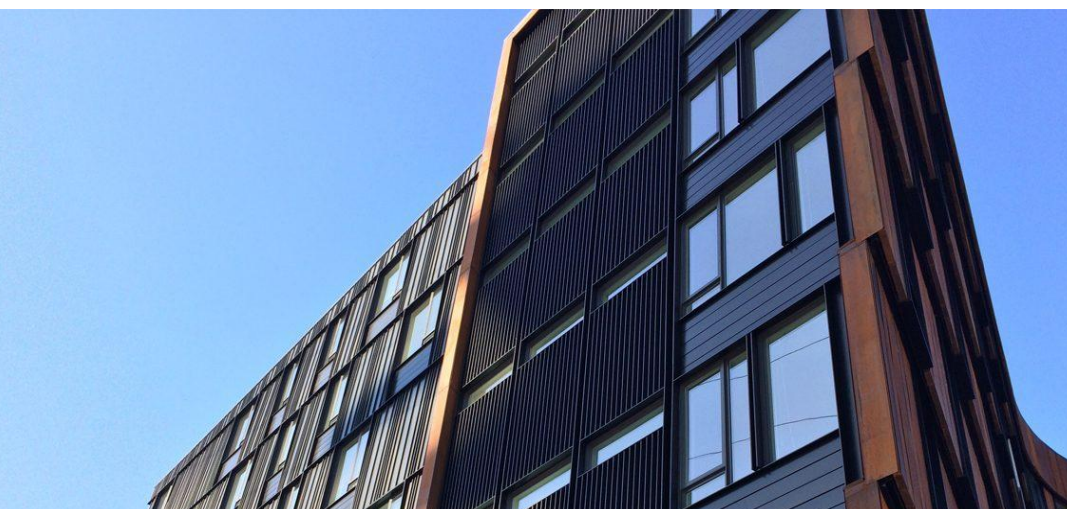


COIL COATING

PRODUCTS WITH PERSPECTIVE

VaraPol; LIQUID POLYESTER RESINS

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Acid Value [mgKOH/g]	Tg [°C]	Mn	OH-Value [mg KOH/g]	Description
CC 1989	60% in S2/F	6000 – 8000	1 – 4	51	5000	23	Linear saturated polyester for primer coating.
CC 2800	60% in S2/G3	4500 – 5500	1 – 4	27	6000	20	For the formulation of coil coating topcoats and offers flexibility, adhesion on aluminium, good gloss level and outdoor durability.
CC 2802	50% in D/S2	2400 – 3200	2 – 5	45	5000	50	High reactive saturated polyester resin specific for can and aerosols coating.
CC 2804	65% in S2	4200 – 4700	1 – 4	23	3000	32	Outdoor durable coil coatings, QUV resistance.
CC 2805	65% in S2/BG	2600 – 3600	4 – 8	0	3000	105	High reactive saturated polyester resin specific for high solid; can and coil coating; topcoat with high reactivity and for back coating. The product complies with the requirements of FDA 21 CFR § 175.300, Part vii polyester.
CC 2808	50% in S2/BG	2000 – 2800	2 – 5	2 4	7000	35	Used in can-white base coat, 3-P-Cans and overprint varnish and coil outdoor durable coatings. Offers hardness, flexibility, sterilization resistance, outdoor durability and reactivity.
CC 2830	60% in S2	4000 - 4700	3 – 6	2 6	4500	20	CC 2830 is linear saturated polyester developed for use in coil coating, for domestic appliances and outdoor durable systems.
CC 2831	60% in S2/BG	2700 – 3600	2 – 5	2 5	5000	30	Recommended in combination with hexamethoxymethylol melamine HMMM or isocyanate for coil topcoats, general industry topcoats and also automotive, durable topcoats with weathering resistance, reactivity and flexibility.
CC 2833	55% in S2	3000 – 4400	1 – 5	3 2	6000	20	VaraPol CC 2833 S2-55 is recommended for coil coating; domestic appliances and indoor use and also for can coating; general purpose and twist off closures with outstanding features of the resin include: deep drawing properties, hardness and drying speed.
CC 2841	60% in S2/G3	1800 – 2200	0 – 1	1 8	4500	28	VaraPol CC 2841 S2G3-60 is recommended in combination with hexamethoxymethylol melamine HMMM for coil topcoats (claddings) and offers flexibility/aging resistance, outdoor durability and cold flex.



COIL COATING

PRODUCTS WITH PERSPECTIVE



VaraPol SMP 1871

High-durability silicone modified polyester for coil coating

Silicone-modified polyester coating systems provide effective protection against chalk and fading for various applications.

Application

- used in high quality, long life industrial finishes
- light armature finishes
- good exterior durable coil coatings (if mixed with compatible polyester resin; e.g. VaraPol CC 2805)
- high-performance primer

Principal properties

- reactivity
- adhesion to aluminium and tinplate
- yellowing resistance and outdoor durability
- provides exceptional durability and offers superior resistance to moisture and UV exposure, with excellent flexibility and abrasion resistance. The unique and highly durable topcoat provides the best color stability and gloss retention of any SMP product.

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Acid Value [mgKOH/g]	Silicon content [%]	OH-Value [mg KOH/g]
SMP 1871	58 - 62% in F/B	50 - 1500	2 – 6	50	35

COIL COATING

PRODUCTS WITH PERSPECTIVE

VaraPol SB 1950 M1-60

Selfcrosslinking saturated polyester resin with blocked isocyanate

VaraPol SB 1950 M1-60 is recommended for can and coil coatings applications with flexibility, corrosion and weathering resistance.

VaraPol SB 1950 M1-60 can be used as a sole binder while the crosslinking occurs via blocked isocyanate.

VaraPol SB 1950 textured coil coating topcoat, with excellent abrasion resistance, aesthetic performance and outstanding corrosion durability. VaraPol SB 1950 M1-60 is recommended for primarily in roofing and accessories as well as appliances, cladding, fencing, roller shutters and gutters.

- Corrosion resistance
- Weathering resistance
- flexibility

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Acid Value [mgKOH/g]
SB 1950	58 - 62% in S2/S1/BG	2600 - 3100	0 – 4

VaraPol SB 1950,

Urethan-modified polyester (SB) prodvide extrior durability for corrosion resistance , weathering resistance and flexibile coatings.



COIL COATING

PRODUCTS WITH PERSPECTIVE

VaraPol; LIQUID POLYESTER RESINS

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Acid Value [mgKOH/g]	Tg [°C]	Mn	OH-Value [mg KOH/g]	Description
CC 2832	55 in S2/BG/PMA	20000 - 30000	2 - 10	32	5000	115	VaraPol CC 2832 is a high reactive polyester resin that offers an excellent PUR foam adhesion on backside coil coatings.
CC 2842	60% in S2	14000 – 18000	5 – 10	25	5500	25	VaraPol CC 2842 S2-60 is recommended for tube coating; white base coat and 3-P-Cans & general line. Outstanding features of the resin include: flexibility (deep drawn), flexibility (cold crush) and flexibility (block resistance). FDA Compliance Binder (EU) 10/2011.
CC 2844	60% in S2/G3	2800 – 3200	0 – 4	19	4000	30	Coil coatings; topcoat (HMMM and isocyanate cure).
CC 2852	60% in S2/F	4500 – 6500	4 – 7	23	4500	45	For can coating; white base coat; 3-pice cans and also for general line and gold lacquer for interior /exterior applications with high flexibility and sterilization resistance.
CC 2857	70% in S1/BG	2700 – 3400	2 – 5	8	2500	50	High reactive saturated polyester resin specific for high solid; can and coil coating; topcoat with high reactivity and for back coating. The product complies with the requirements of FDA 21 CFR § 175.300, Part vii polyester.
CC 2859	50% in S2/BG	2400 – 3000	0 – 5	70	5500	47	Interior can coating, aluminium coil and foil for packaging, primers coil architectural. Principal properties; FDA approved raw materials. (also for alcoholic content). Good adhesion on aluminium, reactive and hardness / abrasion resistance.
CC 2869	55% in S2/F	6000 – 7.500	6 – 9	-10	6000	20	For sterilisation resistance roller coatings. Offers reactivity and adhesion. Provides flexibility and good gloss level.
HF 2865	75% in S2	6000 – 7000	3 – 7	-17	4500	22	Saturated polyester resin for blending to obtain a more flexible coating.
CC 1875	75% in S1X	2500 – 4000	2 – 5	-15	5500	105	For high solid topcoat and back coat coil coating applications.



COIL COATING

PRODUCTS WITH PERSPECTIVE

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