POWDER COATINGS RESINS

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The Coating Resins Company

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About allnex

Facts & Figures

- Global company with over €2.1 billion in sales
- Broad Technology portfolio: liquid coating resins, energy curable resins, powder coating resins, crosslinkers and additives, composites and construction materials
- Approximately 4000 employees
- Customers in more than 100 countries
- 33 manufacturing facilities
- 23 research and technology centers
- 5 joint ventures
- Extensive range of solutions for key coating segments: automotive, industrial, packaging coating and inks, protective, industrial plastics and specialty architectural

With manufacturing, R&D and technical facilities located throughout Europe, North America, Asia Pacific and Latin America, allnex offers global and reliable supply of resins and additives combined with local, responsive customer support.

Table of Contents

Introduction

Global Supplier
allnex is a worldwide supplier of high-quality powder coating resins, hardeners and additives. We offer one of the broadest lines of resins for powder coating finishes, including topname polyester resins, coupled with global product availability, and expert technical support.

Leading-edge Technologies
Right across our global R&D, sales and production network, allnex continues to pioneer the development of innovative technologies to help our partners improve performance and productivity, enter new markets, refine applications and deliver advanced products to meet evolving needs and environmental regulations.

Our products are tailored to suit for a wide range of applications:
- Superdurable resins for exterior powder applications
- Resins for clearcoat and matte finishes
- Resins for low bake powder systems
- UV curing powder systems

Our newest resin technologies are designed for cutting-edge applications where powder paints are not widely used, including industrial and automotive finishes:
- High-performance exterior durable systems
- Natural and manufactured wood products
- Plastic and other heat-sensitive substrates

Wide Selection of Top Products
As a leading global supplier of powder coating resins, hardeners and additives, allnex offers one of the broadest choices of resins for powder coating finishes.
Proven worldwide, our extensive selection of CRYLCOAT® and SETAPOLL™ polyester resins include carboxyl and hydroxyl functional resins for hybrid, TGIC, glycidylester, hydroxy alkyl amide, isocyanates for urethane, and glycoluril powder coating systems.
For new technologies like UV curable powder coatings, we have one of the widest product ranges available, including UVECOAT® unsaturated resins. Powder coating resin technologies of allnex also include the SYNTHACRYL® matting agent and specialty hardeners.
Our flow additives can be supplied on silica carrier.
For improving flow and leveling characteristics in all types of coatings, the versatile MODAFLOW® powder product family is the benchmark name among flow modifiers and powder resins in the coatings industry.
Bringing value to the formulation of powder coatings are ADDITOL® masterbatch flow modifiers, catalysts and related products. Additionally, BECKOPOX® and ADDITOL specialty hardeners solve problems related to flow, and provide special textures or performance to finished coatings.

Product Index

Product	Description
Vehicle Binder Resins	
CRYLCOAT®	Polyester powder coating resins – Carboxyl (-COOH) resins for hybrid, TGIC, glycidylester and ß-HAA powder coatings – Hydroxyl (-OH) resins for polyurethane and glycoluril powder coatings
SETAPOLL™	Polyester powder coating resins – Carboxyl (-COOH) resins for hybrid, TGIC, glycidylester and ß-HAA powder coatings – Hydroxyl (-OH) resins for polyurethane and glycoluril powder coatings
UVECOAT®	Unsaturated resins for UV curable powder coatings
Curing Hardeners (Powder Crosslinkers)	
ADDITOL®	Polyanhydride resin for epoxy functional (glycidyl) acrylics and urethane hardeners for hydroxyl functional binder resins (where available)
BECKOPOX™	Anhydride-like resin for epoxy or hydroxy functional binder resins
Powder Additives and Modifiers	
MODAFLOW®	Powder coating flow modifiers on silica carrier
ADDITOL	Flow additives, catalysts and tribo masterbatches provided on resin carriers.
SYNTHACRYL®	GMA-acrylic matting agent

Product Nomenclature

Thermoset powder coatings are typically cured in a temperature range of 160 °C – 200 °C (object temperature) for 10 minutes. Low temperature cure for heat sensitive substrates or for thick metallic object is achieved through a combination of catalyst and/or longer oven dwell time. General cure guidelines for products listed in this bulletin are summarized below.

Cure Temperature and Time Definitions	
Slow	190°C or greater for 10 min
Medium	170 - 180°C for 10 min
Fast	160°C for 10 min
Low bake	150°C or lower for 10 - 30 min

Resin Selection Guide
● CRYLCOAT®* and SETAPOLL™* polyester resins
● CRYLCOAT and SETAPOLL new HAA resins with improved moisture resistance (water-spot)
● CRYLCOAT and SETAPOLL polyester resins systems for matte finishes
● CRYLCOAT and SETAPOLL polyester resins for low temperature curing
● ADDITOL®*, MODAFLOW®* and SYNTHACRYL®* systems and additives
● UVECOAT®* unsaturated resins for UV-curable powder coatings

Products are presented in this guide using two approaches. The charts and tables in the first section organize products by a powder coating system, and summarize typical resin characteristics. The second section allows formulators to select resins for a given application. The color background used for each product in the charts helps to delineate special product features, as summarized in the table below. From the wide range of resins available, users can match the desired properties with the required coating performance. As an alternative, UV powders can be applied. The powder is made to flow with a brief IR heating followed by exposure to ultraviolet light.

*ADDITOL additives
*CRYLCOAT polyester resins
*MODAFLOW powder flow modifiers
*SETAPOLL polyester resins
*UVECOAT UV-curable resins

Please find below a summary describing how the product names were derived, and what they stand for.

Digit 1	Digit 2	Digit 3 & 4	Digit 5
CRYLCOAT® System - 5 Digit System			
1 = Hybrid	5 = 50/50 6 = 60/40 7 = 70/30 8 = 80/20	Whenever possible equivalent to last two digits of former product name	- 0 = Standard (no additives) - 1 = Tribo - 2 = Overbake - 3 = Tribo & Overbake - 4 = Clear coat - 5 = Special - 6 = Low bake (< 160°C)
2 = Standard Outdoor 4 = Superdurable Outdoor 8 = Crystalline 9 = Other	4 = TGIC 5 = PT-910[1] 6 = Primid®[2] 8 = Urethane		

Example: CRYLCOAT® 1514-2 = 314
Digit 1: 1 for hybrid; Digit 2: 5 for 50/50; Digit 3 & 4: 14 from 314 and Digit 5: 2 for Overbake

Masterbatch Type	Number
ADDITOL® System	
Flow Aid	P 800 - P 899
Tribo, Catalyst, Crosslinkers	P 900 - P 999

Type	Number
UVECOAT® System	
General Purpose Resins	1000 - 1999
Resins for Metal Substrates	2000 - 2999
Resins for Wood and Plastic	3000 - 3999
Special (i.e., crystalline)	9000 - 9999

Type	Number
SYNTHACRYL® System	
Acrylic - All	700 - 799

[1]Trademark of Huntsman Advanced Materials
[2]Trademark of EMS-Chemie

Polyester Resins for Hybrid Powder Coatings

	50/50 AV ~ 70	60/40 AV ~ 50 - 60		70/30 AV ~ 34	80/20 AV ~ 24
Polyester Resins for Hybrid Powder Coatings					
210 °C	● CRYLCOAT® 1544-0				
200 °C		● CRYLCOAT 1622-0	● CRYLCOAT 1660-0	● CRYLCOAT 1783-0	
				● CRYLCOAT 1783-1	
180 °C	● CRYLCOAT 1514-2		● CRYLCOAT 1626-0	● CRYLCOAT 1770-0	● CRYLCOAT 1843-0
	● CRYLCOAT 1573-0		● CRYLCOAT 1627-0	● CRYLCOAT 1771-0	
			● SETAPOLL™ SP143	● CRYLCOAT 1771-3	
			● CRYLCOAT 1686-3	● CRYLCOAT 1716-0	
				● CRYLCOAT 1781-0	
				● SETAPOLL SP125	
				● CRYLCOAT E04342	
170 °C	● CRYLCOAT 1557-5	● CRYLCOAT 1620-0		● SETAPOLL SP254	
				● SETAPOLL SP280	
160 °C	● CRYLCOAT 1593-0		● SETAPOLL SP170	● CRYLCOAT 1750-1	
	● CRYLCOAT 1582-6			● SETAPOLL SP282	
150 °C					
140 °C	● CRYLCOAT 1506-6				
	● CRYLCOAT 1551-6				
130 °C	● CRYLCOAT 1501-6				
	● CRYLCOAT 1572-6				

● CRYLCOAT®* and SETAPOLL™* polyester resins
● CRYLCOAT and SETAPOLL polyester resins for low temperature curing

CRYLCOAT/SETAPOLL	Ratio	Overbake Stable	Tribo	AV	Viscosity	Tg (°C)	Cure T (°C)	Description
Typical Properties of Hybrid Resins								
CRYLCOAT® 1501-6	50 / 50			70	5500 / 175 °C	52	130	Low bake hybrid for MDF application.
CRYLCOAT 1506-6	50 / 50			69	9000 / 175 °C	62	140	Fast cure for metal application or for low bake textured formulation for MDF.
CRYLCOAT 1514-2	50 / 50			71	9300 / 175 °C	55	180	Excellent flow and overbake resistance.
CRYLCOAT 1544-0	50 / 50			70	2500 / 200 °C	54	210	Low reactivity, possible to blend with other carboxyl functional polyester resins.
CRYLCOAT 1551-6	50 / 50			71	6000 / 175 °C	51	140	High reactive with good flow on metal and heat-sensitive substrates such as MDF.
CRYLCOAT 1557-5	50 / 50			71	2000 / 200 °C	50	170	Medium reactivity, excellent scratch resistance.
CRYLCOAT 1572-6	50 / 50			70	4500 / 175 °C	50	130	Low bake hybrid for metal application.
CRYLCOAT 1573-0	50 / 50			70	3500 / 200 °C	56	180	Medium reactivity new generation hybrid, excellent flow and good gloss.
CRYLCOAT 1582-6	50/ 50			70	5000 / 175 °C	52	160	High reactive, good flexibility and specially improved in mar- and scratch resistance.
CRYLCOAT 1593-0	50 / 50			70	3500 / 200 °C	54	160	High reactive hybrid with good flow and gloss
CRYLCOAT 1620-0	60 / 40			60	2700 / 200 °C	54	170	Medium reactivity, can be also used as 50/50.
CRYLCOAT 1622-0	60 / 40			60	2500 / 200 °C	54	200	Low reactivity, can be also used as 50/50.
CRYLCOAT 1626-0	60 / 40			48	3000 / 200 °C	52	180	Medium reactivity new generation hybrid, excellent flow and very good gloss.
CRYLCOAT 1627-0	60 / 40			44	4000 / 200 °C	62	180	Medium reactivity new generation hybrid, high Tg, excellent flow and very good gloss.
CRYLCOAT 1660-0	60 / 40			48	9400 / 175 °C	50	200	Low reactivity, good flexibility and excellent flow with high filler load.
SETAPOLL™ SP143	60 / 40		●	50-55	1500-3000 / 200 °C	55	180	For standard bake applications. Superior flow and excellent gloss.
SETAPOLL SP170	60 / 40		●	55-60	2450-4500 / 200 °C	55	160	For low bake applications. Good flow and excellent gloss.
CRYLCOAT 1686-3	60 / 40	●	●	50	3500 / 200 °C	57	180	Affordable resin with good overall technical performance.
CRYLCOAT 1716-0	70 / 30			30	6500 / 200 °C	60	180	Medium reactivity, good flow, can be used for matt systems.
CRYLCOAT 1750-1	70 / 30		●	35	4500 / 200 °C	52	160	High reactive, tribo, non-blooming.
CRYLCOAT 1770-0	70 / 30			34	5400 / 200 °C	58	180	Medium reactivity with good balance of properties, can be used for matt systems.
CRYLCOAT 1771-0	70 / 30			33	4700 / 200 °C	56	180	Medium reactivity new generation hybrid, good balance of properties.
CRYLCOAT 1771-3	70 / 30	●	●	33	4700 / 200 °C	56	180	Tribo and overbake version of CRYLCOAT® 1771-0.
CRYLCOAT 1781-0	70 / 30			33	5000 / 200 °C	60	180	Medium reactivity new generation hybrid, high Tg for better storage stability.
CRYLCOAT 1783-0	70 / 30			34	5000 / 200 °C	58	200	Excellent flow, high gloss and elasticity. Good for clears.
CRYLCOAT 1783-1	70 / 30		●	34	5000 / 200 °C	56	200	Tribo version of CRYLCOAT 1783-0.
SETAPOLL SP125	70 / 30		●	30-36	4500-6000 / 200 °C	54	180	For standard bake applications. Very good flow and excellent gloss.
SETAPOLL SP254	70 / 30		●	30-36	2000-4500 / 200 °C	54	170	For standard bake applications. Very good flow and excellent gloss. Recommended for matt systems.
SETAPOLL SP280	70 / 30			30-36	2000-4500 / 200 °C	54	170	For standard bake applications. Very good flow and excellent gloss. Recommended for matt systems.
SETAPOLL SP282	70 / 30	●	●	30-36	3500-6500 / 200 °C	50	160	For standard bake applications.Excellent flow and gloss.
CRYLCOAT E04342	70 / 30			35	6000 / 200 °C	60	180	Hybrid resin based on renewable and recycled raw materials.
CRYLCOAT 1843-0	80 / 20			21	11000 / 200 °C	57	180	80/20 hybrid resin for gloss- and matte coatings

Polyester Resins for β-HAA Powder Coatings

							Superdurable	
	97 / 3 Acid# ~ 16-22	96.5 / 3.5 Acid # ~ 25	96 / 4 Acid # ~ 20-27	95 / 5 Acid # ~ 33	94 / 6 - 93 / 7 Acid # 40 - 52	90 / 10 Acid # ≥ 70	95 / 5 Acid # 16 - 35	93 / 7 Acid # > 40
Polyester Resins for Hybrid Powder Coatings								
Matte Dry Blend One Shot Matte 200 – 190 °C		● CRYLCOAT® 2670-3			● CRYLCOAT 2671-3	● CRYLCOAT 2650-3	● CRYLCOAT 4641-0	● CRYLCOAT 4420-0
		● CRYLCOAT 2691-2			● SETAPOLL™ SP275	● CRYLCOAT 2621-2		● CRYLCOAT 4679-0
					● SETAPOLL SP395	● CRYLCOAT 2642-0		● SETAPOLL SP305
		● CRYLCOAT 2611-0			● SETAPOLL SP385	● CRYLCOAT 2687-2		● SETAPOLL SP355
					● SETAPOLL SP365	● SETAPOLL SP238		● SETAPOLL SP345
				● CRYLCOAT® 2638-2		● CRYLCOAT 2635-2		
200 - 190 °C	● SETAPOLL™ SP271	● CRYLCOAT 2675-0		● CRYLCOAT 2698-3			● CRYLCOAT E04327	
	● SETAPOLL SP391			● SETAPOLL SP289			● SETAPOLL SP340	
	● SETAPOLL SP381			● SETAPOLL SP283			● SETAPOLL SP301	
							● SETAPOLL SP341	
							● SETAPOLL SP371	
180 °C		● CRYLCOAT 2619-3	● SETAPOLL SP244	● CRYLCOAT 2617-3			● CRYLCOAT 4659-0	● CRYLCOAT 4626-0
		● CRYLCOAT 2640-3	● SETAPOLL SP252	● CRYLCOAT 2618-3			● CRYLCOAT 4688-2	
		● CRYLCOAT 2607-1		● CRYLCOAT 2651-3				
		● CRYLCOAT 2695-0		● CRYLCOAT 2686-3				
				● CRYLCOAT E04339				
				● CRYLCOAT 2606-3				
				● CRYLCOAT 2664-3				
				● CRYLCOAT 2666-3				
				● CRYLCOAT 2696-3				
				● SETAPOLL SP075				
				● SETAPOLL SP278				
				● SETAPOLL SP290				
				● SETAPOLL SP293				
				● SETAPOLL SP302				
				● CRYLCOAT E04453				
				● CRYLCOAT 2661-3				
170 °C				● SETAPOLL SP103				
	● SETAPOLL SP361							
160 °C	● CRYLCOAT 2668-6	● CRYLCOAT 2697-3		● CRYLCOAT 2679-6	● CRYLCOAT 2693-6		● CRYLCOAT 4655-2	● CRYLCOAT 4643-3
				● SETAPOLL SP211				
				● SETAPOLL SP255				
				● SETAPOLL SP303				
				● CRYLCOAT 2662-3				● CRYLCOAT 4648-0
150 °C					● CRYLCOAT 2655-6			

● CRYLCOAT®* and SETAPOLL™* polyester resins
● CRYLCOAT and SETAPOLL new HAA resins with improved moisture resistance (water-spot)
● CRYLCOAT and SETAPOLL polyester resins systems for matte finishes
● CRYLCOAT and SETAPOLL polyester resins for low temperature curing

Typical Properties of β-HAA Resins

CRYLCOAT/SETAPOLL	Ratio	Gas Oven Stable	Overbake Stable	Blooming Resistant	Tribo	AV	Viscosity	Tg (°C)	Cure T (°C)	Description
Full gloss system										
Exterior										
CRYLCOAT® 2607-1	96 / 4		●		●	24	5500 / 200 °C	57	180	General purpose tribo resin for low demand Primid® formulations.
CRYLCOAT 2611-0	-					25	5500 / 200 °C	58	200	Slow reacting component in dull Matte One Shot formulations.
CRYLCOAT 2617-3	95 / 5	●	●		●	33	3500 / 200 °C	61	180	Tribo resin with excellent flow. Overbake and gas oven resistance.
CRYLCOAT 2619-3	96.5 / 3,5	●	●		●	23	6500 / 200 °C	62	180	Tribo resin for low demand Primid with excellent flow. Overbake and gas oven resistance.
CRYLCOAT 2635-2	-		●			85	3000 / 200 °C	57	200	Fast reacting component in medium gloss One Shot Matte formulations.
CRYLCOAT 2638-2	-		●			33	5500 / 200 °C	62	200	Slow reacting component in medium gloss One Shot Matte formulations.
CRYLCOAT 2697-3	96 / 4	●	●	●	●	26	4000 / 200 °C	54	160	Low bake Primid resin for industrial application: good flow and mechanical properties.
CRYLCOAT 2655-6	93 / 7	●	●		●	48	6000 / 200 °C	58	150	Low bake Primid resin. Possible to blend with CRYLCOAT® 4655-2 to balance weathering and reactivity.
CRYLCOAT 2662-3	95 / 5	●	●	●	●	31	4000 / 200 °C	55	160	Low bake Primid resin for industrial application.
CRYLCOAT 2675-0	96 / 4					24	8500 / 200 °C	68	200	Resin for low demand Primid with improved water spot resistance.
CRYLCOAT 2687-2	-		●			90	3000 / 200 °C	58	200	Fast reacting component in dull Matte One Shot formulations.
CRYLCOAT 2695-0	96 / 4					25	5500 / 200 °C	59	180	General purpose resin for low demand Primid formulations.
CRYLCOAT 2696-3	95 / 5	●	●	●	●	37	4000/200 °C	60	180	Low bake Primid resin for Industrial application. High Tg.
CRYLCOAT 2698-3	95 / 5	●	●		●	33	3500 / 200 °C	56	180	Tribo active resin with outstanding flow and degassing properties up to 160 µ. Overbake and gas oven resistance.
CRYLCOAT E04339	95 / 5	●	●			31	4200 / 200 °C	65	180	Polyester-HAA for Industrial application with improved corrosion resistance.
SETAPOLL™ SP075	95 / 5		●		●	33-38	2000-4000 / 200 °C	62	180	For standard applications. Very good flow and excellent gloss.
SETAPOLL SP103	95 / 5				●	33-39	6500-9000 / 200 °C	68	180	General purpose resin. It is for use in the ratio 95:5 with HAA, but can also be cured with PT910 at a ratio 92:8, TGIC at a ratio 93:7 and epoxy resin at 70:30 ratio.
SETAPOLL SP211	95 / 5	●		●		25-30	4000-7000 / 200 °C	58	160	For low bake applications. Non tribo version of SETAPOLL™ SP255.
SETAPOLL SP255	95 / 5	●		●	●	25-30	4000-7000 / 200 °C	58	160	For low bake applications. Tribo version of SETAPOLL SP211.
SETAPOLL SP278	95 / 5		●	●		32-37	2000-4000 / 200 °C	54	180	For standard applications. Good flow and gloss.
SETAPOLL SP290	95 / 5	●	●		●	33-38	2000-5000 / 200 °C	59	160	For low bake applications. Very good flow and excellent gloss. Reduced blooming.
SETAPOLL SP244	96 / 4				●	20-25	5000-8000 / 200 °C	58	180	For standard bake applications. Very good flow and gloss.
SETAPOLL SP252	96 / 4					22-27	3500-6500 / 200 °C	55	180	For standard bake applications. Contains flow aid at working level. Superb sag and flow characteristics. Outstanding performance in white formulations.
SETAPOLL SP271	97 / 3		●			16-22	6500-9500 / 200 °C	55	200	Low hardener demand. For standard bake applications. Very good flow and gloss. Can be used as part of matt pair system with Setapoll SP275.
SETAPOLL SP391	97 / 3		●		●	16-22	6500-9500 / 200 °C	55	200	Low hardener demand. For standard bake applications. Very good flow and gloss. Tribo version of Setapoll SP271. Can be used as part of matt pair system with Setapoll SP395.
Durable										
CRYLCOAT 2606-3	95 / 5	●	●		●	33	4500/200 °C	66	180	Tribo resin with excellent weathering and very good flow. Improved blanching resistance. Overbake and gas oven resistance. High Tg.
CRYLCOAT 2618-3	95 / 5	●	●		●	33	3100 / 200 °C	61	180	Tribo resin with excellent weathering and very good flow. Overbake and gas oven resistance.
CRYLCOAT 2640-3	96,5 / 3,5	●	●		●	23	7000 / 200 °C	60	180	Enhanced architectural low demand Primid resin.
CRYLCOAT 2651-3	95 / 5	●	●		●	32	3000 / 200 °C	55	180	Enhanced architectural Primid resin with outstanding flow and degassing properties up to 160 microns. Overbake and gas oven resistance.
CRYLCOAT 2664-3	95 / 5	●	●		●	33	3200/200 °C	58	180	Tribo resin with excellent weathering and very good flow. Improved blanching resistance. Overbake and gas oven resistance.
CRYLCOAT 2666-3	95 / 5	●	●	●	●	30	3800/200 °C	58	180	Tribo resin for enhanced architectural application with excellent weathering and very good flow. Improved blanching resistance. Overbake and gas oven resistance.
CRYLCOAT 2679-6	95 / 5	●	●	●	●	32	7000 / 200 °C	54	160	Low bake Primid resin for architectural application.
CRYLCOAT 2686-3	95 / 5	●	●	●	●	31	3300 / 200 °C	55	180	Enhanced architectural Primid resin.
CRYLCOAT E04453	95 / 5		●		●	33	3500 / 200 °C	64	180	Polyester-HAA for Architectural application with improved corrosion resistance.
CRYLCOAT 2661-3	95 / 5	●	●	●	●	30	3200 / 200 °C	58	180	Good flow and degassing properties, improved storage stability and excellent outdoor durability combined with improved overbake, gas oven and water-spot resistance.

CRYLCOAT/SETAPOLL	Ratio	Gas Oven Stable	Overbake Stable	Blooming Resistant	Tribo	AV	Viscosity	Tg (°C)	Cure T (°C)	Description
SETAPOLL™ SP283	95 / 5		●	●	●	32-37	1500-3500 / 200 °C	50	200	Architectural grade. For standard bake applications. Excellent flow achievable with different HAA grades. Excellent mechanical properties.
SETAPOLL SP289	95 / 5		●	●	●	32-37	1000-3000 / 200 °C	50	200	Architectural grade. For standard bake applications. Excellent flow and appearance.
SETAPOLL SP293	95 / 5	●	●		●	30-35	1500-4500 / 200 °C	55	180	Architectural grade. For standard bake applications. Very good flow and gloss. Reduced bloom. Suitable for textured finishes.
SETAPOLL SP302	95 / 5		●		●	32-37	1500-3500 / 200 °C	54	180	Architectural grade. For standard bake applications. Very good flow and gloss.
SETAPOLL SP303	95 / 5	●	●	●		25-30	3000-5500 / 200 °C	58	160	Architectural grade. For low bake applications. Very good flow and gloss.
SETAPOLL SP381	97 / 3		●	●		16-22	4000-7000 / 200 °C	61	200	Architectural grade. Low hardener demand. For standard bake applications. Very good flow and gloss. Can be used as part of matt pair system with SETAPOLL™ SP385.
SETAPOLL SP361	97 / 3	●	●	●	●	16-22	5500-8500 / 200 °C	60	170	Architectural grade. For low bake applications. Very good flow and gloss.
Superdurable										
CRYLCOAT® 4626-0	92 / 8			●		50	4300 / 175 °C	64	180	Superdurable resin suitable for high Tg powder coatings.
CRYLCOAT 4643-3	92 / 8	●	●	●	●	50	1800 / 200 °C	62	160	Superdurable resin with high functionality and good flow.
CRYLCOAT 4648-0	94 / 6	●	●	●	●	38	6000 / 175 °C	52	160	Superdurable resin for low bake formulations.
CRYLCOAT 4655-2	95 / 5	●	●	●		31	8000 / 200 °C	66	160	High functional superdurable resin.
CRYLCOAT 4659-0	95 / 5			●		33	3700 / 200 °C	59	190	Superdurable resin with some flexibility. Can be used in Primid® and TGIC formulations.
CRYLCOAT 4688-2	95 / 5	●	●	●		30	5500 / 175 °C	54	180	Superdurable resin with good flexibility and excellent flow. Suitable for ACE applications.
SETAPOLL SP340	95 / 5	●		●		32-37	4500-6500 / 200 °C	60	200	Superdurable grade. For standard bake applications. Good flow and gloss. Good mechanical aging properties.
SETAPOLL SP301	96 / 4			●		22-27	2500-5000 / 200 °C	60	200	Superdurable grade. For standard bake applications. Very good flow and gloss. Can be used as part of matt pair system with SETAPOLL SP305.
SETAPOLL SP341	97 / 3			●		16-22	3500-6500 / 200 °C	59	200	Superdurable grade. For standard bake applications. Very good flow and gloss. Can be used as part of matt pair system with SETAPOLL SP345.
SETAPOLL SP371	97 / 3	●		●	●	16-22	3500-6500 / 200 °C	59	200	Superdurable grade. For standard bake applications. Very good flow and gloss. Tribo version of SETAPOLL SP341.
CRYLCOAT E04327	95 / 5			●		33	1500 / 200°C	58	200	Superdurable grade with outstanding outdoor durability and improved corrosion resistance.
Matt systems										
Exterior										
CRYLCOAT 2621-2	88 / 12		●			72	9000 / 200 °C	62	190	For matte dry-blend systems in combination with CRYLCOAT® 2691-2. Industrial application.
CRYLCOAT 2642-0	90 / 10					72	2500 / 200 °C	52	180	For matte dry blend systems in combination with CRYLCOAT 2691-2. Industrial application.
SETAPOLL SP238	90 / 10					70	2000-4000 / 200 °C	63	200	For standard bake. Can be dry blended with other SETAPOLL resins for maximum gloss reduction in matt systems and also for special applications.
SETAPOLL SP275	93 / 7		●			46-52	2500-4500 / 200 °C	60	200	For standard bake. Very robust system for general metal applications. For use as part of matt pair system with SETAPOLL SP271.
SETAPOLL SP395	93 / 7		●		●	46-52	2500-4500 / 200 °C	60	200	For standard bake. Tribo version of SETAPOLL SP275. For use as part of matt pair system with SETAPOLL SP391.
Durable										
CRYLCOAT 2650-3	90 / 10	●	●		●	70	6200 / 175 °C	51	190	For matte dry blend systems in combination with CRYLCOAT 2670-3. Optimised weathering resistance.
CRYLCOAT 2668-6	97 / 3	●	●		●	18	12000 / 200°C	60	160	Resin tribo active for matte dry blend low bake to be used in combination with CRYLCOAT 2693-6.
CRYLCOAT 2670-3	97 / 3	●	●		●	21	8000 / 200 °C	61	190	For matte dry blend systems in combination with high demand Primid resins. Optimised weathering resistance.
CRYLCOAT 2671-3	93 / 7	●	●		●	48	5800 / 200 °C	58	190	For matte dry blend systems in combination with CRYLCOAT 2670-3. Optimised weathering resistance.
CRYLCOAT 2691-2	97 / 3		●			21	7600 / 200 °C	62	180	For matte dry blend systems in combination with high demand Primid resins.
CRYLCOAT 2693-6	93 / 7	●	●		●	54	11000 / 200°C	60	160	Resin tribo active for matte dry blend low bake to be used in combination with CRYLCOAT 2668-6.
SETAPOLL SP385	93 / 7		●	●		46-52	1000-3000 / 200 °C	60	200	Architectural grade. For standard bake. Reduced bloom. For use as part of matt pair system with SETAPOLL SP381.
SETAPOLL SP365	93 / 7	●	●		●	46-52	3500-5500 / 200 °C	57	160	Architectural grade. For low bake. Reduced bloom. For use as part of matt pair system with SETAPOLL SP361.
Superdurable										
CRYLCOAT 4420-0	92 / 8			●		51	5500 / 200 °C	64	200	Resin for matte dry blend superdurable systems in combination with CRYLCOAT 4641-0.
CRYLCOAT 4641-0	97 / 3			●		20	4300 / 200 °C	60	200	Resin for matte dry blend superdurable systems in combination with high demand Primid resins.
CRYLCOAT 4679-0	90 / 10		●	●		70	7000 / 175 °C	63	200	Resin for matte dry-blend Primid superdurable in combination with CRYLCOAT 4641-0.
SETAPOLL SP305	92 / 8			●		53-58	2000-4500 / 200 °C	61	200	Superdurable grade. For standard bake. For use as part of matt pair system with SETAPOLL SP301.
SETAPOLL SP355	92 / 8			●	●	53-58	2000-4500 / 200 °C	61	200	Superdurable grade. Tribo version of SETAPOLL SP305.
SETAPOLL SP345	93 / 7			●		46-52	4500-6500 / 200 °C	64	200	Superdurable grade. For standard bake. For use as part of matt pair system with SETAPOLL SP341.

Polyester Resins for TGIC Powder Coatings

	93/7 AV ~ 33	96/4 AV ~ 20	90/10 AV ~ 50	Superdurable
Polyester Resins for TGIC Powder Coatings				
200 °C	● CRYLCOAT® 2401-2	● CRYLCOAT 2432-0		● CRYLCOAT 4420-0
	● CRYLCOAT 2441-2	● CRYLCOAT 2496-2		● CRYLCOAT 4430-0
	● CRYLCOAT 2441-3			● CRYLCOAT 4488-0
	● CRYLCOAT 2440-2			● CRYLCOAT E04484
	● CRYLCOAT 2471-4			
	● CRYLCOAT E04417			
	● CRYLCOAT 2411-2			
190 °C	● CRYLCOAT 2425-0			
180 °C	● CRYLCOAT 2450-2		● CRYLCOAT 2490-2	
160 °C	● CRYLCOAT 2433-2			

● CRYLCOAT®* and SETAPOLL™* polyester resins
● CRYLCOAT and SETAPOLL polyester resins systems for matte finishes
● CRYLCOAT and SETAPOLL polyester resins for low temperature curing

CRYLCOAT®	Ratio	Overbake Stable	Tribo	AV	Viscosity	Tg (°C)	Cure T (°C)	Description
Typical Properties of TGIC Resins								
CRYLCOAT 2401-2	93 / 7	●		33	3500 / 200 °C	60	200	Low reactive resin with outstanding flow, high flexibility and excellent outdoor resistance.
CRYLCOAT 2411-2	93 / 7	●		32	5000 / 200 °C	63	200	Improved chemical aging and chemical resistance with good flow.
CRYLCOAT 2425-0	93 / 7			34	6200 / 200 °C	70	190	Medium reactivity, high Tg.
CRYLCOAT 2432-0	96 / 4			20	7900 / 200 °C	53	200	For matte dry blend systems in combination with CRYLCOAT® 2490-2.
CRYLCOAT 2433-2	93 / 7	●		33	3500 / 200 °C	60	160	High reactivity, good flow and flexibility.
CRYLCOAT 2440-2	93 / 7	●		33	5100 / 200 °C	67	200	Low reactive resin, good flow and flexibility, stabilized.
CRYLCOAT 2441-2	93 / 7	●		33	5000 / 200 °C	67	200	Low reactive resin, excellent flow, stabilized.
CRYLCOAT 2441-3	93 / 7	●	●	33	4600 / 200 °C	67	200	Tribo version of CRYLCOAT 2441-2.
CRYLCOAT 2450-2	93 / 7	●		33	5000 / 200 °C	67	180	Accelerated version of CRYLCOAT 2441-2.
CRYLCOAT 2471-4	93 / 7	●		33	3500 / 200 °C	58	200	Low reactive resin for clear coat formulations, excellent smoothness and clarity.
CRYLCOAT 2490-2	90 / 10	●		47	4800 / 200 °C	69	180	For matte dry blend systems in combination with CRYCLOAT 2432-0.
CRYLCOAT 2496-2	95 / 5	●		23	7200 / 200 °C	62	200	General purpose resin for low demand TGIC, high Tg.
CRYLCOAT E04417	93 / 7	●		32	4000 / 200 °C	62	200	Resin for TGIC with improved corrosion resistance.
CRYLCOAT 4420-0	90 / 10			51	5500 / 200 °C	64	200	Superdurable resin. May be used alone or as part of matte dry blend system in combination with CRYLCOAT 4430-0.
CRYLCOAT 4430-0	93 / 7			35	2000 / 200 °C	62	200	Superdurable resin with outstanding flow. May be used alone or as part of matte dry blend system in combination with CRYLCOAT 4420-0.
CRYLCOAT 4488-0	93 / 7			33	5400 / 200 °C	64	200	Superdurable resin for TGIC with outstanding weathering resistance.
CRYLCOAT E04484	93 / 7			32	5500 / 200 °C	66	200	Superdurable resin for TGIC with outstanding outdoor durability and improved corrosion resistance.

Polyester Resins for Glycidylester Powder Coatings

Type	92 / 8 - 91 / 9 AV ~ 33	97 / 3 AV ~ 25	90 / 10 AV ~ 40	Superdurable
Polyester Resins for Glycidylester Powder Coatings				
200 °C	● CRYLCOAT®* 2593-0			● CRYLCOAT 4540-0
	● CRYLCOAT 2592-1			
	● CRYLCOAT 2501-2			
180 °C	● CRYLCOAT 2503-2	● CRYLCOAT 2505-4		
	● CRYLCOAT 2506-1		● CRYLCOAT 2536-0	
160 °C	● CRYLCOAT 2594-2	● CRYLCOAT 2578-0		

● CRYLCOAT®* and SETAPOLL™* polyester resins
● CRYLCOAT and SETAPOLL polyester resins systems for matte finishes
● CRYLCOAT and SETAPOLL polyester resins for low temperature curing

CRYLCOAT®	Ratio	Overbake Stable	Tribo	AV	Viscosity	Tg (°C)	Cure T (°C)	Description
Typical Properties of Glycidylester Resins								
CRYLCOAT 2501-2	91 / 9	●		33	9400 / 200 °C	73	200	Excellent flow, flexibility and chemical resistance.
CRYLCOAT 2503-2	93 / 7	●		24	8500 / 200 °C	68	180	Very high heat resistance.
CRYLCOAT 2505-4	92 / 8	●		33	4500 / 200 °C	65	180	Resin for clear formulations with excellent flow and transparency.
CRYLCOAT 2506-1	91 / 9		●	33	5000 / 200 °C	67	180 (15 ')	General purpose tribo resin.
CRYLCOAT 2536-0	90 / 10			40	7000 / 200 °C	68	180	For matte dry blend systems in combination with CRYLCOAT® 2593-0.
CRYLCOAT 2578-0	92 / 8			33	9000 / 200 °C	71	170	Resin suitable for low temperature curing.
CRYLCOAT 2592-1	93 / 7	●	●	26	9500 / 200 °C	69	200	General purpose tribo resin.
CRYLCOAT 2593-0	93 / 7			26	10500 / 200 °C	70	200 (15 ')	Outstanding flow, recommended for use in clear. For matte dry blend systems in combination with CRYLCOAT 2536-0.
CRYLCOAT 2594-2	92 / 8			32	4500 / 200 °C	67	160	High reactive with good flow and good outdoor durability.
CRYLCOAT 4540-0	93 / 7			25	9000 / 200 °C	67	200	Superdurable resin with excellent properties.

Resins and Hardeners for Urethane Powder Coatings

	OHV 30	OHV 50	OHV 80 –180	OHV 300	Superdurable
Hydroxyl Polyester Resins for Urethane Powder Coatings					
200 °C		● CRYLCOAT® 2883-0	● CRYLCOAT 2857-5	● CRYLCOAT 2814-0	● CRYLCOAT 4890-0
		● CRYLCOAT 2839-0			
		● CRYLCOAT 2860-0			
190 °C			● CRYLCOAT 2818-0		

Wrinkle System	Anhydride Hardener	NCO Hardeners	Utility Resins
Special Hydroxyl Polyester Resins and Hardeners			
● CRYLCOAT 2920-0	● BECKOPOX® EH 694	● ADDITOL P932	● CRYLCOAT 9292-0
● ADDITOL® P920		● ADDITOL P965	● CRYLCOAT 9240-0

● CRYLCOAT®* and SETAPOLL™* polyester resins
● CRYLCOAT and SETAPOLL polyester resins systems for matte finishes
● ADDITOL®*, MODAFLOW®* and SYNTHACRYL®* systems and additives

CRYLCOAT®	OHV	Viscosity	Tg (°C)	Cure T (°C)	Description
Typical Properties of Urethane Resins					
CRYLCOAT 2814-0	300	3200 / 200 °C	52	200	Outstanding hardness, chemical and stain resistance. Useful for low gloss formulations.
CRYLCOAT 2818-0	100	3000 / 200 °C	58	190	Improved chemical and stain resistance. Can be used to produce thermally stable coatings.
CRYLCOAT 2839-0	50	5500 / 200 °C	57	200	Good flow and resistance properties. Good for clears.
CRYLCOAT 2857-5	180	2600 / 200 °C	52	200	NPG free for use with blocked polyisocyanates, uretdi-ones or anhydride hardner BECKOPOX EH 694.
CRYLCOAT 2860-0	50	3500 / 200 °C	52	200	Resin for one shot matte systems in combination with CRYLCOAT 2814-0.
CRYLCOAT 2883-0	47	4000 / 200 °C	61	200	Excellent flow, high hardness and good outdoor durability. High Tg.
CRYLCOAT 2920-0	33	12700 / 200 °C	67	200	Produces durable wrinkle finishes in combination with ADDITOL® P 920.
CRYLCOAT 4890-0	30	5000 / 200 °C	58	200	Superdurable resin with excellent properties.

ADDITOL®	OHV	Viscosity	Tg (°C)	Cure T (°C)	Description
ADDITOL P920	42	8500 / 200 °C	N /A	N /A	Catalyst masterbatch for CRYLCOAT 2920-0 to obtain durable wrinkle finish. 5% active substance.

ADDITOL	NCO %	Viscosity	Tg (°C)	Cure T (°C)	Description
ADDITOL P932	9 –10	N /A	47	N /A	Aliphatic urethane pre-polymer crosslinker. For outdoor applications.
ADDITOL P965	16 –17	N /A	51	N /A	Aromatic urethane adduct crosslinker. For indoor applications.

BECKOPOX®	PAV	Tg (°C)	Cure T (°C)	Description
BECKOPOX® EH 694	275	50 – 60	N /A	Anhydride hardener for OH polyester or acrylic or epoxy resins. Outstanding chemical and overbake resistance.

CRYLCOAT	OHV	Viscosity	Tg (°C)	Cure T (°C)	Description
CRYLCOAT 9240-0	37	24000 / 200 °C	58	N /A	OH polyester with very high viscosity. Outstanding chemical and overbake resistance with very high viscosity.
CRYLCOAT 9292-0	37	4000 / 200 °C	58	200 °C	For use as organic filler or for indoor coatings with aromatic urethane hardeners.

Resins and Additives for UV-curable Powder Coatings

Metal	MDF / Wood	Plastics
Resins for UV-curable Powder Coatings		
● UVECOAT® 2100	● UVECOAT 3002	● UVECOAT 3003
● UVECOAT 2200	● UVECOAT 3005	
● UVECOAT 9539		

Co-Reactant	Semi-crystalline
Additives and Specialty Resins for UV-curable Powder Coatings	
● UVECOAT 9146	● UVECOAT 9010

UVECOAT	AV	Viscosity	Tg (°C)	Description
Typical Properties of UV-curable Resins				
UVECOAT 2100	≤ 3	5500 / 200 °C	57	For metal applications. Exterior durable. Can be pigmented or used as clear.
UVECOAT 2200	< 2	4500 / 175 °C	54	Outstanding weathering for metal applications. Can be pigmented or used as clear.
UVECOAT 3002	≤ 3	4000 / 175 °C	49	High performance wood-based substrate coating. Good for textured and clear coats. Good yellowing resistance.
UVECOAT 3003	≤ 3	3200 / 175 °C	49	For PVC flooring applications. Improved chemical and abrasion resistance with good flexibility. Not for exterior applications.
UVECOAT 3005	≤ 10	4000 / 200 °C	48	For wood and wood substrate applications. Can be pigmented or used as a clear. Excellent scratch resistance.
UVECOAT 9010	≤ 3	350 / 100 °C	MT = 85	Semi-crystalline co-resin for UV-curable formulations giving improved mechanical performance, flexibility, and smoothness.
UVECOAT 9146	≤ 15	55000 / 140 °C	55	Unsaturated urethane acrylate for use as a “crosslinker” in UV powder coatings. Enhances reactivity, surface hardness and chemical resistance.
UVECOAT 9539	≤ 13	4000 / 200 °C	44	For metal applications. To provide excellent adhesion of UV curable powder to a wide variety of metal substrates.

● ADDITOL®*, MODAFLOW®* and SYNTHACRYL®* systems and additives
● UVECOAT®* unsaturated resins for UV-curable powder coatings

Masterbatches and Additives for Powder Coatings

Catalysts	Flow Promoters	Flow Aids	Tribo Additives
Masterbatches and Additives for Powder Coatings			
● ADDITOL® P964	● ADDITOL P896	● MODAFLOW® POWDER III	● ADDITOL P950
● ADDITOL P966	● ADDITOL P824	● MODAFLOW POWDER 6000	
	● ADDITOL P891		
	● ADDITOL P890		

Polyanhydride Hardener	Matting Hardener
Acrylic Resins and Additives for Powder Coatings	
● ADDITOL P791	● SYNTHACRYL® 700

Products	AV/OHV	Viscosity	Tg (°C)	Description
Typical Properties of Masterbatches and Additives				
ADDITOL P824	OHV 45	1400 / 200 °C	49	Flow-aid masterbatch for pigmented durable coatings. 15 % active substance in an outdoor resistant hydroxylated polyester matrix.
ADDITOL P891	AV 35	2300 / 200 °C	56	Flow-aid masterbatch for clear powder coatings. 5 % active substance in an outdoor resistant carboxylated polyester matrix.
ADDITOL P896	OHV 45	1700 / 200 °C	57	Flow-aid masterbatch for pigmented powder coatings. 15 % active substance in an outdoor resistant hydroxylated polyester matrix.
ADDITOL P890	OHV 45	1500 / 200 °C	52	Flow-aid masterbatch for clear powder coatings. 10 % active substance in an outdoor resistant hydroxylated polyester matrix.
ADDITOL P950	OHV 28	7500 / 200 °C	N / A	Tribo masterbatch for indoor and outdoor coatings. 5 % active substance.
ADDITOL P964	AV 33	3200 / 200 °C	N / A	Catalyst masterbatch for hybrids, TGIC or PT 910 systems. 5 % active substance.
ADDITOL P966	AV 35	1800 / 200 °C	N / A	Catalyst masterbatch in a superdurable matrix for TGIC or PT 910 systems. 5 % active substance.

Products	Active %	Volatile Loss %	Density g/cm³	Description
MODAFLOW POWDER III	Min 65	Max 4	0.58 – 0.64	Addition at 0.6 – 1.5 % of the total formulation. Based on FDA listed monomers.
MODAFLOW POWDER 6000	Min 65	Max 4	0.58 – 0.64	Addition at 0.75 – 1.0 % of the total formulation. Excellent flow and gloss. Lessens cross- contamination issues.

Product	EEW	Viscosity	Tg (°C)	Description
SYNTHACRYL 700	774	39800 200 °C	80	Glycidyl poly-acrylic resin designed as a matting hardener in combination with carboxylated polyesters.

Product	PAV	Viscosity	MT (°C)	Description
ADDITOL P791	317	N /A	85	Aliphatic polyanhydride hardener for use with solid acrylic resins containing glycidyl groups.

Superdurable Resins for Powder Coatings

TGIC	Primid®	Araldite® PT 910	Isocyanate
Superdurable Resins for Powder Coatings			
● CRYLCOAT® 4430-0	● CRYLCOAT 4688-2	● CRYLCOAT 4540-0	● CRYLCOAT 4890-0
● CRYLCOAT 4420-0	● CRYLCOAT 4659-0		
● CRYLCOAT 4488-0	● CRYLCOAT 4626-0		
● CRYLCOAT E04484	● CRYLCOAT 4641-0		
	● CRYLCOAT 4420-0		
	● CRYLCOAT 4655-2		
	● CRYLCOAT 4679-0		
	● CRYLCOAT 4648-0		
	● CRYLCOAT 4643-3		
	● CRYLCOAT E04327		
	● SETAPOLL™ SP340		
	● SETAPOLL SP341		
	● SETAPOLL SP301		
	● SETAPOLL SP371		
	● SETAPOLL SP305		
	● SETAPOLL SP355		
	● SETAPOLL SP345		

● CRYLCOAT®* and SETAPOLL™* polyester resins
● CRYLCOAT and SETAPOLL polyester resins systems for matte finishes
● ADDITOL®*, MODAFLOW®* and SYNTHACRYL®* systems and additives

Gloss Control Systems for Powder Coatings

	Primid Standard	Primid Superdurable	TGIC Standard	TGIC Superdurable
Dry-Blend Systems				
Min 30 %	● CRYLCOAT® 2670-3 AV 21	● CRYLCOAT 4641-0 AV 20	● CRYLCOAT 2432-0 AV 20	● CRYLCOAT 4420-0 AV 51
	● CRYLCOAT 2671-3 AV 48	● CRYLCOAT 4420-0 AV 51	● CRYLCOAT 2490-2 AV 47	● CRYLCOAT 4430-0 AV 35
	● CRYLCOAT 2691-2 AV 21	● SETAPOLL SP301 AV 24		
	● CRYLCOAT 2642-0 AV 72	● SETAPOLL SP305 AV 55		
	● SETAPOLL™ SP381 AV 20	● SETAPOLL SP341 AV 22		
	● SETAPOLL SP385 AV 50	● SETAPOLL SP345 AV 50		
	● SETAPOLL SP361 AV 20			
	● SETAPOLL SP365 AV 50			
	● SETAPOLL SP271 AV 20			
	● SETAPOLL SP275 AV 50			
	● SETAPOLL SP391 AV 20			
	● SETAPOLL SP395 AV 50			
Min 20 %	● CRYLCOAT 2670-3 AV 21	● CRYLCOAT 4641-0 AV 20		
	● CRYLCOAT 2650-3 AV 70	● CRYLCOAT 4679-0 AV 70		
	● CRYLCOAT 2691-2 AV 21			
	● CRYLCOAT 2621-2 AV 72			

	Urethane	Acrylic	Glycoluril	Primid
One Shot Matte Systems				
Min 20 %				● CRYLCOAT 2635-2
				● CRYLCOAT 2638-2
< 12 %	● CRYLCOAT 2860-0 OHV 50	● SYNTHACRYL® 700	● CRYLCOAT 2920-0	● CRYLCOAT 2687-2
	● CRYLCOAT 2814-0 OHV 300	● CRYLCOAT 2441-2	● ADDITOL® P920	● CRYLCOAT 2611-0

Health, Safety and Product Handling

Toxicity
CRYLCOAT® and SETAPOLL™ polyester products are solid resins with minimal toxicity. MODAFLOW® products have been subjected to acute toxicity and mutagenicity studies.
Details on specific coverage of individual studies are available upon request. Resin containers may contain polymer dust that could be irritating. Prevent dusty conditions and avoid breathing dust. Also, avoid contact with eyes and prolonged or repeated contact with skin. Use only with adequate ventilation. Equipment should be grouded to prevent electrical sparking. For more information on each product, please consult the current material safety data sheet (MSDS) which will be provided by allnex. Take into account the potential risk resulting in formulation with other materials such as catalysts, hardeners, pigments, and fillers.

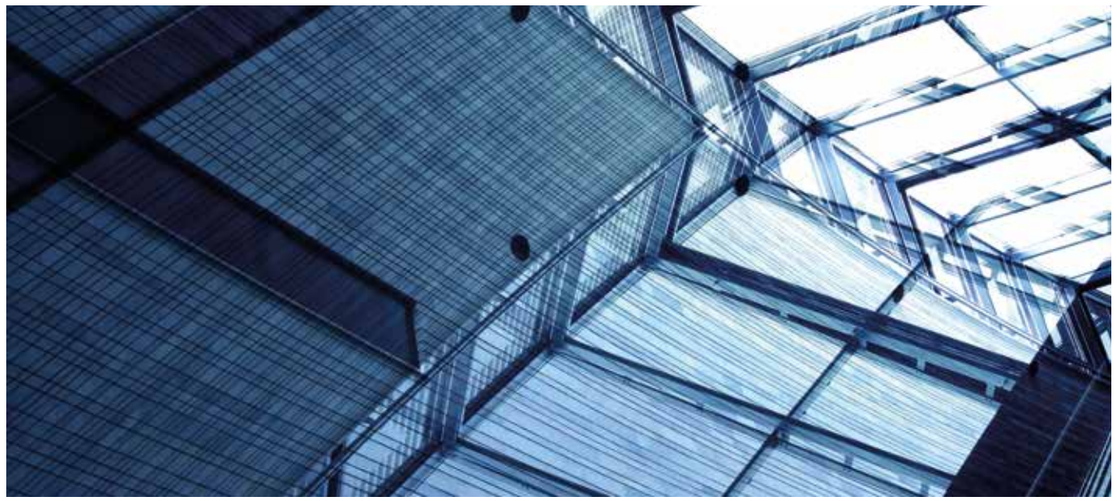
Storage
BECKOPOX®, CRYLCOAT, SETAPOLL, UVECOAT®, SYNTHACRYL® and ADDITOL® resins should be stored according to guidelines mentioned in the material safety data sheet (MSDS) and kept away from heat sources, humidity and direct sunlight. Do not stack more than two pallets high. MODAFLOW powder products should not be stored in environments of high heat or humidity. The ideal storage temperature is between 4 °C (40 °F) and 38 °C (100 °F). Keep away from sparks and flame.

Shelf Stability
BECKOPOX, CRYLCOAT, SETAPOLL, UVECOAT, SYNTHACRYL, and ADDITOL resins have a minimum shelf life of one year after shipment when stored according to guidelines mentioned in the material safety data sheet (MSDS). The shelf life of MODAFLOW powder products is typically at least four years, when stored in the recommended environment.

Packaging Information
CRYLCOAT, SETAPOLL, UVECOAT, SYNTHACRYL, and ADDITOL resins are typically provided in 25 kg (55.1 lb) polyethylene bags. Supersack containers of 500 kg or 1000 kg are available upon request. MODAFLOW powder products are typically provided in 68 kg (150 lbs) fiber drums. Upon special request, 454 kg (1000 lbs) polypropylene bulk bags are available. BECKOPOX is typically provided in 25 kg paper bags with polyethylene in-liner.

Glossary of Terms

Key Word	Description
Acid Value (AV)	The amount of KOH, reported in mg, necessary to neutralize the acid content of one gram of polyester.
Blooming	A hazy appearance on the surface of the coating brought on by migration of low molecular weight material during low temperature cure or extended exposure to heat.
Curing Temperature	The metal or object temperature required to fully cure the powder coating system in 10 minutes.
Epoxy Equivalent Weight (EEW)	The weight of resin, in grams, which contains one gram-equivalent of epoxy.
Florida Exposure	Standard outdoor exposure test to approximate the natural weathering performance of a coating under severe conditions. The test panels are exposed in Florida under defined angle direction South.
Glass Transition Temperature (Tg)	The characteristic temperature in °C of an amorphous polymer corresponding to the change from a solid to liquid state as measured by DSC.
Gloss	Degree to which a surface reflects light.
Hydroxyl Value (OHV)	The amount of KOH, reported in mg, equivalent to the hydroxyl content of one gram of polyester.
Matte	A coating appearance that reflects a minimal amount of light.
Melting Temperature (MT)	The characteristic temperature in °C at which a solid material becomes a liquid.
Partial Acid Value (PAV)	After partial reactions of the anhydride group with a monofunctional alcohol, the amount of KOH, reported in mg, necessary to neutralize the acid content of one gram polymer.
Polyester/Hardener Ratio	Weight ratio between the polyester resin and the hardener recommended for optimal properties.
Storage Stability	Ability of powder coatings to maintain free flow powder properties after being subjected to a specified storage condition.
Superdurable	A polyester resin that exhibits extended outdoor weathering characteristics, typically maintaining > 50 % gloss retention after 3 years (EU) and min. 30% gloss retention after 5 years (US) exposed in Florida at defined angle direction South.
Viscosity	The melt viscosity of the polymer, measured with a Brookfield1 viscometer in mPa.s at a specified temperature.
Wrinkle	A unique, special effect finish characterized by closely associated ridge-like structures.
Blanching resistant resins	Resins providing less sensitivity towards whitening effect of powder coating films caused by absorption of moisture, especially of powders formulated with basic HAA hardeners.



Notes