



CPD

Tooling Products Guide

Product Category	System/Description
Room Temperature Casting Resin	301A/301B Aluminum filled, Cast ≤ 3/4” Thick Cures at room temperature. Compatible with molds made of plaster, wood, metal or plastic. Additional aluminum can be added at your facility. Very good machinability.

High Temperature Casting Resins	9533A/9286B Aluminum filled, 350°F Service, Cast ≤ 2” Thick Excellent for fabricating vacuum forming molds. Low viscosity and machines well. Requires a post cure to acheive ultimate mechanical properties.
	2136A/9276B Aluminum Filled, 450°F Service, Cast ≤ 2” Thick Compatible with mold made of plaster, wood, metal or plastic. Requires a post cure to achieve ultimate properties.

Room Temperature Surface Coat	406A/406B General Purpose, Low Cost Easy to brush, thixotropic surface coat with good “hang-up” qualities. CPD 406 can be brushed on or applied with a squeegee. Use with CPD 506A/506B.
-------------------------------	---

High Temperature Surface Coats	2102A/9245B 275°F service Thixotropic and aluminum filled surface coat designed for use at elevated temperatures. Use for wet lay up, autoclaved and compression molded parts. Requires post cure.
	2132A/9284B 350°F service Thixotropic, aluminum filled surface coat designed specifically for 350°F service. Use for wet lay-up, autoclaved parts and compression molded parts. Post cure required.

Mix Ratio		Pot Life		Mixed Viscosity	Density	Hardness	Compressive Strength	Tensile Strength	Heat Deflection Temp		Shrinkage	Machinability	Color
by weight	by volume	1 lb. mass	150g. mass	centipoise	lb/in^3	shore	psi	psi	Room Temp.	Post Cure	in/in		
12:1	6.2:1	45	65	7,000	0.067	92D	13,500	4,500	135	170	<0.002	Very Good	Grey

100:6	9.25:1	60	90	18,000	0.059	89D	35,000	6,800	PCR	355	<0.002	Very Good	Grey
100:6	9.25:1	60	90	18,500	0.059	91D	36,000	6,700	PCR	455	<0.002	Very Good	Grey

10:1	6.6:1	20	25	Thixotropic	0.056	89D	13,800	6,800	130	165	<0.0003	Fair	White
------	-------	----	----	-------------	-------	-----	--------	-------	-----	-----	---------	------	-------

100:14	6:1	45	60	Paste	0.044	89D	25,000	4,400	PCR	282	<0.002	Good	Black
10:1	7:1	25	30	Paste	0.049	92D	28,500	7,800	PCR	355	<0.002	Good	Grey

PCR = Post Cure Required

* = Heat Required for Infusion & injection

** = Gel Time at 170°F

Cast-A-Form

9600, 9601, 9602 Hot Melt Eutectic Salt

Cast-A-Form is a water soluble hot melt system suitable for creating mold and mandrel forms which may be used in the manufacture of various composite structures including hollow items such as ducts and tanks or pressure vessels. It is a powder, which only requires melting and subsequent pouring into a heat resistant mold. It solidifies on cooling and may be easily demolded without the use of mold release agents.

Handling Properties	9600	9601	9602
Heat Resistance, °F	275	350	450
Melting & Pouring Temperature, °F	306-333	326-420	441-550
Mold Preheat Temperature, °F	150-200	175-225	300-350

Product Category	System/Description
------------------	--------------------

Room Temperature Laminating Resins	506A/506B General Purpose Rapid-setting, low viscosity, laminating resin that can be used in other diverse applications. Works well with CPD 406A/B surface coat.
	574A/574B Unfilled, Toughened Rapid-setting, low viscosity, laminating resin that works well in adhesive applications for pattern model shops because of it's toughened properties.
	2165A/9245B 250°F service Fast-setting lamination system for use at elevated temperatures. Excellent wet out characteristics and provides tough laminate product for tooling. Mild post cure required.

High Temperature Laminating Resins	2134A/9286B 350°F service Unfilled, laminating resin system designed for use at elevated temperatures. Low viscosity ensures excellent wet out of parts. Post cure required.
	2135A/9276B 450°F service Unfilled, laminating resin system designed for use at elevated temperatures. Low viscosity ensures excellent wet out of parts. Post cure required.

High Temperature Infusion Resins	4310A/9234B 250°F service Medium pot life, low viscosity system developed for infusion for parts that need to handle a service temperature above 250°F. Post cure required.
	4303-1A/4303-1B 400°F service Unfilled epoxy system designed for service up to 350°F. Low viscosity at elevated temperatures ensures maximum wet out of fiberglass, carbon fiber or kevlar. Post cure required.
	4307A/4303-1B 350°F service, Toughened High temperature infusion resin with enhanced fracture toughness, peel and lap-shear strength due to core shell rubber filler. Excellent wet out at elevated temperatures. Post cure required.

Mix Ratio		Pot Life		Mixed Viscosity	Density	Hardness	Compressive Strength	Tensile Strength	Heat Deflection Temp		Shrinkage	Machinability	Color
by weight	by volume	1 lb. mass	150g. mass	centipoise	lb/in^3	shore	psi	psi	Room Temp.	Post Cure	in/in		
100:17	3.5:1	22	30	3,000	0.049	89D	38,000	24,400	135	180	<0.001	Fair	White
100:25	3.5:1	15	20	700	0.04	82D	37,800	13,900	140	190	<0.001	Fair	Amber
100:25	3.5:1	40	50	2,500	0.041	93D	18,800	12,900	PCR	272	<0.002	Fair	Amber

100:14	6:1	40	50	1,800	0.041	88D	21,500	12,400	PCR	355	<0.002	Fair	Amber
100:14	6:1	40	50	1,900	0.041	90D	25,000	11,800	PCR	455	<0.002	Fair	Amber

100:20	4:1	TBD	60	500*	0.041	85D	15,800	11,800	PCR	259	<0.0002	Fair	Amber
100:107	100:103	TBD	180**	750*	0.043	87D	25,600	12,100	PCR	375	<0.005	Fair	Green
100:88	100:82	TBD	180**	1,800*	0.043	87D	14,700	10,500	PCR	345	<0.005	Fair	Brown

PCR = Post Cure Required

* = Heat Required for Infusion & injection

** = Gel Time at 170°F

About CPD & Polytek

Vast Library of Products and Custom Formulations

CPD (Custom Polymer Designs) has been custom formulating and manufacturing epoxy resin systems for over 25 years. We in-house manufacture our products so we can keep up with your changing needs. You can expect that you will get not only an excellent epoxy system from us, but also excellent technical and customer service. This is a sampling of our most popular products for infrastructure repair, if you do not see exactly what you are looking for please call us so we help you find something in our vast library of product formulas. You can trust us with your because we care about the success of our customers.

About Polytek

Started in 1984, Polytek Development Corporation, is a leading manufacturer of specialty polymers including, polyurethane elastomers, casting resins, silicones, epoxies and latex systems.

Polytek's collective mission is to design and manufacture the highest-performance line of liquid rubbers and related casting products and to provide our customers with unmatched, industry-setting technical support and customer service. In doing so, we are comitted to helping our customers realize the greatest value from the use of our products and resources.



In the end, our success is defined by yours.



www.epoxi.com
www.polytek.com

info@epoxi.com
sales@polytek.com

(800) 755-8568

55 Hilton Street
Easton, PA 18042