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Formulated Resins Products for Electronic & Electrical Applications

Apply Our Formulation Science
to Optimize Your Future.

About Cytec

Cytec is the formulation expert in potting and encapsulation resins, conformal coatings and adhesives for electronic and electrical applications. Our trusted electrical insulation material and adhesive solutions have successfully performed in the field for over 50 years.

As your global partner, we'll develop customized solutions so that you may pursue applications that open doors for you and your customers. Our sales and technical service experts support a wide range of UL, IPC, and MILSPEC approved products, including recognition to UL 94 V-0, UL 94 5VA, and UL RTI ratings for high temperatures up to 130°C. Cytec technical specialists will assist you with new designs, provide production support, and help you develop solutions to improve performance and line speed for your applications.



Application Legend:

PM = Power Management

ED = Electrical Devices

EI = Electrical Insulation

ME = Microelectronics

HT = High Temperature Electrical Insulation

CU = Controller Units

PCB = Printed Circuit Boards

Potting and Encapsulation Compounds

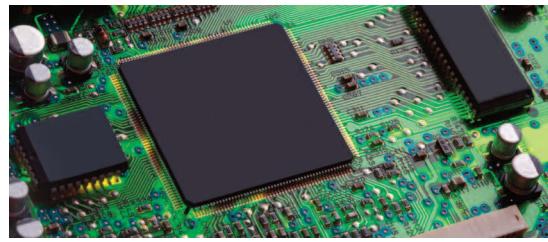
Cytec's potting and encapsulation compounds are designed to optimize the performance and life of modern electronics by minimizing stress on components during thermal cycling and maintaining adhesion to a variety of substrates. The extensive range of mixed viscosity, shore hardness and thermal conductivity offered in this unique product suite afford you to select the optimal product to support fast and efficient production.

Product	Application	Chemistry	UL Flame Rating	UL RTI Rating Elec/Mech	Initial Mixed Viscosity @ 25°C, cps	Shore Hardness
CONATHANE EN-2521	PM, CU, ME, ED, EI, HT	Polyurethane	94 HB	120°C/120°C	4000	65D
CONATHANE EN-2541	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	120°C/120°C	6000	70D
CONATHANE EN-2550	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	50°C/120°C	3000	50D
CONATHANE EN-2553	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	50°C/120°C	4500	95A
CONATHANE EN-7	PM, CU, ME, ED, EI, HT	Polyurethane	--	--	5500	90A
CONATHANE EN-16	PM, CU, ME, ED, EI, HT	Polyurethane	--	--	4000	80A
CONATHANE EN-14	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-2	120°C/120°C	1500	65A
CONATHANE EN-21	PM, CU, ME, ED, EI, HT	Polyurethane	94 HB	120°C/120°C	2000	80A
CONAP EN-5310	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-2	50°C/50°C	3000	See note
CONAP EN-5320	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	50°C/120°C	4500	95A
CONAP EN-5322	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	120°C/120°C	6000	70D
CONAP EN-5330	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	50°C/120°C	3000	50D
CONAP EN-5340	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	50°C/120°C	400	40A
CONAP EN-5850	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	130°C/130°C	7500	85A
CONAP EN-5851	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	130°C/130°C	8500	85A
CONAP EN-5852	PM, CU, ME, ED, EI, HT	Polyurethane	94 V-0	130°C/130°C	8500	85A
CONAPOXY FR-1047 with EA-87	PM, CU, ME, ED, EI, HT	Epoxy	94 V-0/5VA	90°C/90°C	3200 - TDS 6,800	85D
CONAPOXY FR-1810 Black	PM, CU, ME, ED, EI, HT	Epoxy	94 V-0	90°C/90°C	8000	80-85D
CONAPOXY FR-1820 Black	PM, CU, ME, ED, EI, HT	Epoxy	94 V-0	90°C/90°C	6900	80-85D
CONAPOXY FR-1080	PM, CU, ME, ED, EI, HT	Epoxy	--	--	2500	90D

Note: Depends on mix ratio

Conformal Coatings

Cytec offers an extensive portfolio of conformal coatings for electronic and electrical applications. We have the technical expertise to formulate custom materials and continually invest in product development with specific focus on improved safety, environmental compliance and faster processing. Our portfolio includes a wide variety of thin film dielectric barrier systems, designed for rigorous applications that are qualified across multiple IPC and MIL specifications to meet your specific performance and quality standards.



Product	Application	Chemistry	MIL-Spec / IPC	Solids Content, %	Tack Free Time @ 25°C	Cure Time @ 25°C
CONATHANE CE-1164	CU, ME, ED, PCB	Polyurethane	MIL-I-46058-C, Type UR IPC-CC-830B	50	20 - 30 min.	24hrs for handling / 7 days for full cure
CONAP CE-1170	CU, ME, ED, PCB	Acrylic	MIL-I-46058-C, Type AR IPC-CC-830B	31	10 - 15 min.	24 hours
CONAP CE-1171	CU, ME, ED, PCB	Acrylic	MIL-I-46058-C, Type AR IPC-CC-830B	30	20 min.	24 hours
CONATHANE CE-1175	CU, ME, ED, PCB	Polyurethane	MIL-I-46058-C, Type UR IPC-CC-830B	32	60 min.	Heat cured 4 hrs @ 60°C plus 3-5 days @ 25°C
CONATHANE CE-1155	CU, ME, ED, PCB	Polyurethane	MIL-I-46058-C, Type UR IPC-CC-830B	60A / 64-66B	4 - 5 hrs	24hrs for handling / 7 days for full cure
CONATHANE CE-1155-35	CU, ME, ED, PCB	Polyurethane	MIL-I-46058-C, Type UR IPC-CC-830B	37A / 30B	2 - 3 hrs	24hrs for handling / 7 days for full cure
CONAP CE-2290	CU, ME, ED, PCB	Acrylic	MIL-I-46058-C, Type AR IPC-CC-830B	28	5 min.	24 hours

Performance and Industrial Adhesives

Cytec extends its formulation expertise to deliver a range of polyurethane and epoxy adhesives and sealants to address the rigorous requirements in electronic applications. These products are designed to address the challenges presented by varying substrate material, automated assembly processes and an infinite combination of production environments and performance requirements.



Product	Application	Substrate to be Bonded to	Mix Ratio wt.	Initial Mixed Viscosity 25°C, cps	Gel Time	Shear Strength psi
EASYPOXY K-20	ME, ED, PCB	Metal, Rubber, Plastics	100 / 45	Paste	Pot Life 20 Mins	2500
EASYPOXY K-22	ME, ED, PCB	Metal, Rubber, Plastics	100 / 45	Paste	Pot Life 20 Mins	2500
EASYPOXY K-45	ME, ED, PCB	Metal, Plastics, Ceramics, Glass	100 / 100	Light Paste	Pot Life 4-6 Mins	2520
EASYPOXY K-230	ME, ED, PCB	Glass	100 / 45	Light Paste	Pot Life 60 Mins	2450
CONAP PR-1167	ME, ED, PCB	Metal, Polyurethane, Rubber	75	Liquid	Based on customer application	n/a
CONAPOXY AD-10	ME, ED, PCB	Metal, Plastics, Ceramics	One-component	Thixotropic Non-Flow	Based on customer application	3000
CONAPOXY AD-1146	ME, ED, PCB	Metal, Glass, Glass Fiber Laminate	One-component	2000	Based on customer application	4500*
CONAPOXY AD-1147	ME, ED, PCB	Metal, Glass, Glass Fiber Laminate	One-component	2000	Based on customer application	4500*
CONAPOXY AD-1146-C	ME, ED, PCB	Metal, Glass, Glass Fiber Laminate	One-component	160	Based on customer application	4500*
CONAPOXY AD-1147-C	ME, ED, PCB	Metal, Glass, Glass Fiber Laminate	One-component	160	Based on customer application	4500*

*Used in conjunction with CONATHANE RN-1501/CONACURE AH-5

Apply our formulation science to optimize your future. Cytec will partner with you to understand your specific application requirements while providing you with our technical expertise to help you overcome the challenges in electrical insulation and adhesion. Please contact our expert sales and technical experts to find out how our advanced formulations will help your electronic/electrical devices perform to its fullest.

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