

Conap® and Conathane®

products are now available from



**Conformal Coatings** 

Formulated Resins

# **Apply Our Formulation Science to Optimize Your Future**

## **Products**

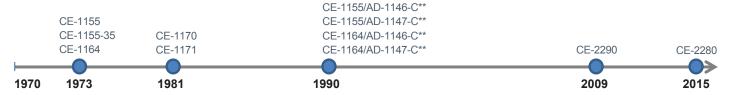
Our CONAP® and CONATHANE® products represent the gold standard in superior moisture barrier conformal coatings for electronic insulation. Our product



lines include both acrylic and polyurethane formulations, and many are offered in one or two component systems to lend the most flexibility for tailored solutions. ELANTAS PDG, Inc. has one of the most comprehensive lines of resin systems in the market today that are UL94 V-0 certified, ROHs compliant, meets military specifications (MIL-I-46058C) and IPC standards (IPC-CC-830).\* With these quality standards, you can be confident in the reliability and durability of ELANTAS PDG, Inc.'s electronic insulation products for your applications.

### A History of Meeting Higher Standards

(MIL-I-46058-C Qualifications)



<sup>\*</sup>MIL SPEC tests are performed in a DoD approved lab facility inside ELANTAS PDG, Inc. UL certification tests are conducted by independent third parties while IPC certifications are self-certifying tests.

# **Industry Applications**

ELANTAS PDG, Inc.'s dedicated team of regional account managers and technical service experts will work closely with you to understand your unique application and processing requirements. Our team will help you determine the resin system that will allow you to remain competitive in the industries you serve.

#### **Consumer Electronics**

The Consumer Electronics Market is a highly competitive one where the continuous drive exists of producing more energy efficient products in a more cost-effective way without handing in on quality and reliability of the end product.

Product	Chemistry	Description	Qualifications	Tack Free Time @ 25°C,	Cure Time @ 25°C,	Repairability
CONAP® CE-1170	Acrylic	One-component system     Easy to use and repair     Excellent electrical & moisture resistance	MIL-I-46058-C, TYPE AR IPC-CC-830B UL94 V-0 H Free IEC61249-2-21	10-15 min	24 hours	Excellent
CONAP® CE-1171	Acrylic	<ul> <li>One-component system</li> <li>Easy to use and repair</li> <li>A low VOC alternative to CE-1170</li> <li>Excellent electrical &amp; moisture resistance</li> </ul>	MIL-I-46058-C, TYPE AR IPC-CC-830B UL94 V-0 H Free IEC61249-2-21	20-30 min	24 hours	Excellent
CONAP® CE-2280	PU	<ul><li>One-component system</li><li>A low VOC alternative to CE-1164</li><li>Easy to use and repair</li></ul>	Tested per MIL-I-46058-C Type UR	30-40 min	24 hours	Good

<sup>\*\*</sup> The use of CONAP® AD-1146 or AD-1147 can be used to enhance adhesion of coatings to low surface energy substrates for high reliability circuits. The use of AD-1146 or AD-1147 is MIL-I-46058C approved with ELANTAS PDG, Inc. coatings.

# Aerospace & Defense

ELANTAS PDG, Inc. has multiple conformal coating products that meet the stringent military specifications, providing a variety of applications in the defense and space programs with products that require the highest degree of reliability in electrical and electronics insulation.



Product	Chemistry	Description	Qualifications	Insulation Resistance @ 25°C, 50% R.H.	Chemical Resistance
CONATHANE® CE-1155	PU	Two-component system     Resistance to chemical environments     Imparts low stress on fragile components     Excellent electrical properties	MIL-I-46058-C, TYPE UR IPC-CC-830B UL94 V-0	>2.5 x 10 <sup>13</sup>	Excellent
CONATHANE® CE-1155-35	PU	Two-component system Resistance to chemical environments Imparts low stress on fragile components Pre-diluted spray version of CE-1155	MIL-I-46058-C, TYPE UR IPC-CC-830B	>2.5 x 10 <sup>13</sup>	Excellent
CONATHANE® CE-1164	PU	One-component system     Resistant to chemical environments     Imparts low stress on fragile components     Easy to handle	MIL-I-46058-C, TYPE UR IPC-CC-830B H Free IEC61249-2-21	2.5 10 <sup>13</sup>	Excellent

# **Industrial Electronics**

Miniaturization, higher efficiency and reliability are the focal points for performance requirements in industrial electronics. Where components have higher exposure to humidity and other rigorous conditions, ELANTAS PDG, Inc. offers the ultimate insulation for electronic components and printed circuitry.

Product	Chemistry	Description	Qualifications	Tack Free Time @ 25°C,	Cure Time @ 25°C,	Chemical Resistance
CONAP® CE-1164	PU	<ul> <li>One-component system</li> <li>Excellent humidity &amp; chemical resistance</li> <li>Protects against harsh environments around power relays, control modules or printed circuit boards</li> <li>Flexible, minimizes thermal stress</li> </ul>	MIL-I-46058-C, TYPE UR IPC-CC-830B	20-30 min	24 hours (handling) 7 days (full cure)	Excellent
		build-up  • One-component system	MIL-I-46058-C. TYPE AR		()	
CONAP® CE-1170	Acrylic	<ul> <li>Easy to use and repair</li> <li>Retains flexibility, avoids fracturing of fragile components during thermal cycling</li> </ul>	IPC-CC-830B UL94 V-0 H Free IEC61249-2-21	10-15 min	24 hours	Fair
CONAP® CE-2280	PU	<ul> <li>One component system</li> <li>Toluene/ Xylene free solvent system</li> <li>Low odour formulation</li> <li>Ideal for PCB insulation</li> <li>Retains flexibility, avoids fracturing of fragile components during thermal cycling</li> <li>Good solvent resistance and hydrolytic stability</li> </ul>	UL-94V-0	15 min	24 hours	Good

#### **Automotive**

The integration of electronic components in the automotive industry has steadily increased since the introduction of the first digital engine control modules in the 1980s. Today, electronics account for 40% of the value for a traditional car, and as high as 75% for electric/ hybrids vehicles. Electronic assemblies continue to become increasingly sophisticated and an important aspect of both the functionality and reliability of modern automobiles. Conformal coatings offer critical protection against humidity, salt-spray, noxious gases and other sources of corrosion.

Product	Chemistry	Description	Qualifications	Insulation Resistance @ 25°C, 50% R.H.	Chemical Resistance	Dielectric Withstand Voltage
CONATHANE® CE-1155	PU	Two-component system     Designed for use in adverse environments	MIL-I-46058-C, TYPE UR IPC-CC-830B UL94 V-0	>2.5 x 10 <sup>13</sup>	Excellent	<10 µA
CONATHANE® CE-1164	PU	One-component system	MIL-I-46058-C, TYPE UR IPC-CC-830B	2.5 x 10 <sup>13</sup>	Excellent	<10 µA
CONAP® CE-2280	PU	<ul> <li>Single component system</li> <li>Toluene/ Xylene free solvent system</li> <li>Low odour formulation</li> </ul>	UL-94V-0	1.5 x 10 <sup>16</sup>	Good	No flashover or breakdown
		Good solvent resistance and hydrolytic stability				

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