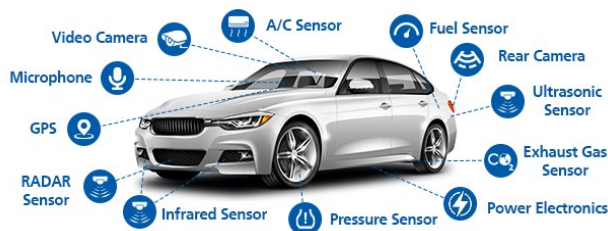


Material Solutions for Automotive Electronics

Expertise/Closeness/Innovation



In the automotive industry, the reliability and longevity of electronic components and sensors are paramount, especially as vehicles increasingly rely on advanced electronics for critical functions. Conformal coatings and potting materials play a crucial role in protecting these components from harsh environmental factors such as moisture, dust, chemicals, and temperature fluctuations. For both electric vehicles (EVs) and internal combustion engine (ICE) vehicles, ensuring that electronics remain functional under extreme conditions is vital to maintaining vehicle safety, performance, and customer satisfaction.

As the market shifts towards electric vehicles, the demand for robust protection solutions has intensified. EVs often operate at higher voltages and are subject to more severe thermal stresses, making the protection of sensors and electronics even more critical. Conformal coatings and potting materials not only provide a barrier against environmental threats but also enhance the durability and reliability of electronic systems, thereby reducing the risk of costly failures and extending the lifespan of automotive components across all types of vehicles.

ELANTAS is at the forefront of providing innovative solutions for the automotive electronics and sensor market. Our advanced conformal coatings and potting materials are specifically designed to meet the demanding requirements of both electric and internal combustion vehicles. With a commitment to quality and reliability, ELANTAS ensures that our products offer superior protection, helping automotive manufacturers deliver safer, more durable vehicles. Our tailored solutions are developed with the future in mind, supporting the ongoing evolution of automotive technology.

Potting Material Properties**

Product	Chemistry	Curing Mechanism	Mix Ratio (by weight / by volume)	Mixed Viscosity	Shore Hardness	Worklife	UL Flame Class
Conashield™ CS-212	Polyurethane	RT/HEAT	100:87 100:100	10,000 cP	A 50	6 min	–
CONAP® FG-42	Polyurethane	RT/HEAT	24.5:100 23.7:100	300 cP	000 70	40 Min	–
Conathane® EN-2523	Polyurethane	RT/HEAT	20:100 24:100	2800 cP	D 50	50 min	HB @ 0.75 mm
Conathane® EN-5310	Polyurethane	RT/HEAT	Variable typical 1:1	3,000 cP	A 20 - 55	50 min	V-2 @ 6.0 mm
CONAP® EN-5852	Polyurethane	RT/HEAT	20:100 25:100	8,500 cP	A 85	30 min	V-0 @ 2.8 mm
Conathane® EN-5317	Polyurethane	RT/HEAT	100:97 100:100	300 cP	A 70	15 min	–
ELAN-Tron® U 510S	Polyurethane	RT/HEAT	100:24 100:18.2	4,000 cP	A 55	25 min	–
Damivel® U620	Polyurethane	RT/HEAT	100:5 100:10	180,000 cP	A 82	8 min	V-0 @ 1.0 mm
Damivel® U602	Polyurethane	RT/HEAT	100:9 100:13	4700 cP	A 50	42 min	V-0 @ 6.0 mm
Dolph® CB-1107	Epoxy	RT/HEAT	100:20 100:34	3,000 cP	D 40–50	170–240 min	V-0 @ 6.0 mm

**Values provided are typical and can vary pending application and processing conditions

Conformal Coating Material Properties**

Product	Chemistry	Curing Mechanism	No. of Components	% Solids	Viscosity	Tack Free Time	UL Flame Class
CONAP® CE-1170	Acrylic	RT / Heat	1	30 %	400 cP	15 min	V-0 @ 1 mil
Synthite® AC-46-1	Urethane-Alkyd	RT / Heat	1	45 %	200 cP	60 min	–
Bectron™ PT 4600	Urethane-Acrylate	UV	1	100 %	1,000 cP	5–10 sec	V-0 @ 0.4 mil

**Values provided are typical and can vary pending application and processing conditions

Adhesive Material Properties**

Product	Chemistry	Curing Mechanism	Mix Ratio (by weight / by volume)	Mixed Viscosity	Shore Hardness	Gel Time	UL Flame Class
CONAP® AD 6413	Polyurethane	RT / Heat	100:87 100:100	10400 cP	D 60	2 min	–

**Values provided are typical and can vary pending application and processing conditions

ELANTAS is a global supplier of materials for the electric and electronic industry, including:

Conformal Coating

Bectron™, CONAP®, Conathane®
Acrylic/Epoxy/Polyurethane/Polyurethane – Alkyd/Polyurethane – Acrylate/Silicone 1K/2K/UV & Heat Cure/UV & Moisture Cure/Heat Cure/Moisture Cure/Air Dry

Encapsulation

Bectron™, Conashield™, Conathane®
Polyolefin /Polyurethane/
Polyurethane – Acrylate/Silicone 1K/2K/UV & Moisture Cure/Heat Cure/Moisture Cure

Potting & Casting

Bectron™, CONAP®, Conapoxy®,
Conashield™, Conathane®
Epoxy/Polyolefin/ Polybutadiene/
Polyurethane/Silicone
1K/2K/Heat Cure/Moisture Cure/
RT Cure

ELANTAS is part of the ALTANA group and is a leading manufacturer of insulating and protecting materials for the electrical and electronics industry. Our portfolio includes wire enamels, impregnating resins and varnishes, flexible electrical insulation materials, casting & potting resins for motors, generators and transformers, as well as conformal coatings for protecting PCBs, modules, or sensors. In addition, we offer a wide range of adhesives, as well as materials for printed electronics.

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