

The most advanced solution to replace your fluorinated polymer coatings for harsh electrical and environmental conditions

Advanced nanoGUARD coatings reach ready state within 30-60 seconds in ambient temperatures, requiring no ovens or curing process. Additionally, nanoGUARD’s unique gel-state eliminates the need for masking connectors, contacts and components with connect-through capability and enables undercoating of components, including BGAs for 100% surface protection.

	ANG 112	ANG TITAN	Fluoro-Polymers
SOLVENT	C7 – C8 Isoalkanes 81 wt	C7 – C8 Isoalkanes 70 wt	Fluorinated solvent
VISCOSITY	4.7-5.5 cP @ 25° C	2-5 cP @ 25° C 1-2 cP	1-2 cP
COATING THICKNESS	5-100 µm (depending on required protection)		0.1 – 4.0 µm (depending on application method)
SOLVENT & CHEMICAL RESISTANCE	Resists a variety of fluids including water, saltwater, soapy water, Coke, Gatorade, coffee, salt, windshield washer fluid, coolant, mixed flowing gas, sweat		Resists a variety of solvents and chemicals
OPERATING TEMPERATUR	-40 to +200 °C		Up to 175 °C for 24 hours
Tg (GLASS TRANSITION TEMPERATURE)	No glass transition down between -60 and +200 °C		44-53 °C (127 °F)
CONTACT ANGLE (STATIC, WATER)	108°	102°	105°
REWORKABILITY	Can be easily removed to repair and replace components		Requires fluorinated solvent to remove
NON-FLAMMABLE	Meets UL 94 V-0		Meets UL 94 V-0
COEFFICIENT OF THERMAL EXPANSION	ANG gel-state creates no inherent stress on components or solder joints		70-90 µm/(m· °C)
THERMAL CONDUCTIVITY	0.15-0.18 W/m·K		0.1 W/m·K
DIELECTRIC CONSTANT @30% RH PER ASTM D150	3.01 (@500 MHz)	3.23 (@500 MHz)	3.2 (@1 kHz)

