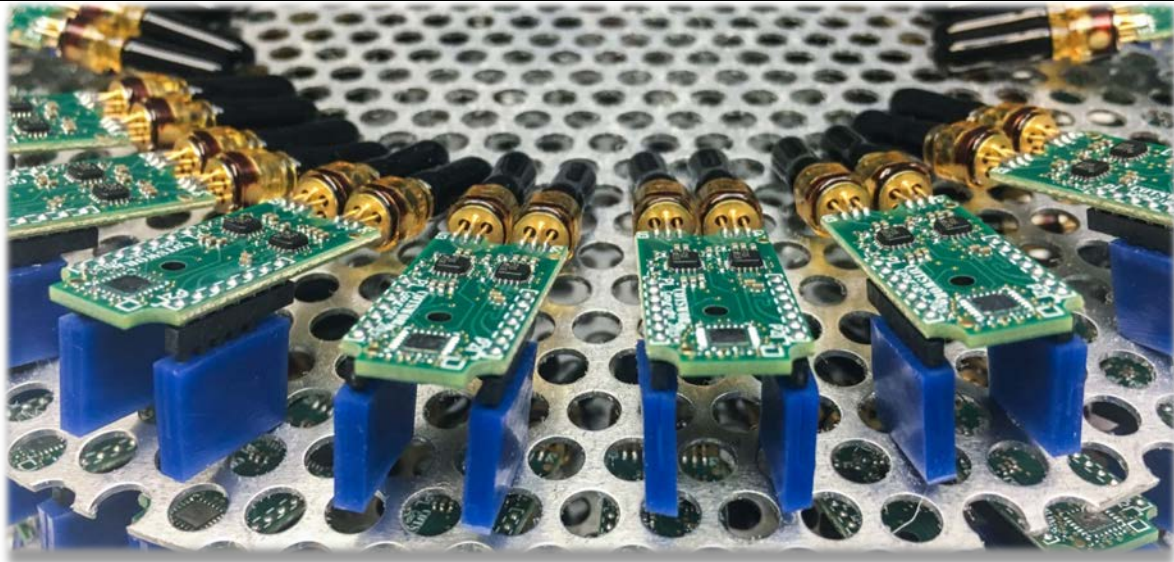


COTSWORKS offers a variety of coatings such as Parylene, Urethane, Silicone, Epoxy, and Acrylic. Conformal coating transceivers allow them to go into harsh environments where moisture, solvents, or corrosive chemicals could cause failure of the electronics. The laser assembly is usually hermetically sealed, but the laser driver and associated circuitry are extremely susceptible to both ESD and environmental damage. Corrosion can cause a change in opto-electric performance which results in changes in link budget or thermal emission changes. Conformal coatings can prohibit tin finger growth on RoHS compliant modules. Our coatings meet MIL-I-46058 and the newer IPC-CC-830.

Sample Coating Types and Their Attributes

Attribute	Parylene C	Conathane CE-1155	Humiseal 1B31	Sprayon
Mil-I-46058C IPC-CC-830B	Yes	Yes	Yes	No
Cost	Expensive	Moderate	Moderate	Cheap
Colors available	Clear	Clear	Clear	Clear, Red, Green
Application	CVD	Brush, Spray, Dip	Spray	
Resistance to Acids	Excellent	Excellent	Good	Unknown
Resistance to Bases	Excellent	Excellent	Good	Unknown
Resistance to Solvents	Excellent	Excellent	Poor	Unknown
Cure Type	CVD	Room or Elevated Temperature		
Shelf Life of raw material(months)	12	15	18	12
Operating Temp. Range °C	-195 to +125	-65 to +125	-65 to +125	-65 to +155
UV Additive	Yes	Yes	No	No
Dielectric Strength	6900 V/mil	1500 V/mil	3500 V/mil	2100 V/mil
Dielectric Constant	3.10	3.50	2.5	Unknown
Dissipation Factor	0.0027	0.0142	0.01	Unknown
Ease of Rework	Hard	Medium		
Solubility	N/A	Solvent	Water Option	Solvent



Contact COTSWORKS at 440-446-8800 for more information on our ruggedized fiber optic components, test equipment, or services.