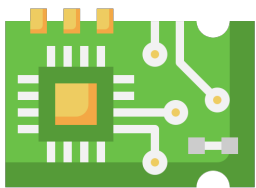


Poly-Para-Xylylene C, D, N

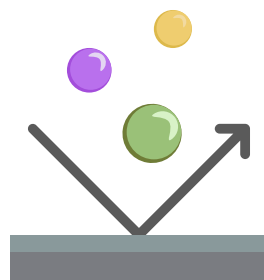
Conformal coatings are applied to printed circuit boards (PCBs) to protect them from environmental stress such as salt, corrosion, humidity, and moisture, mitigate tin whiskers, and provide a barrier to electrically insulate components. A wide variety of conformal coating types are available, each with their own strengths and weaknesses.

Commonly referred to as parylenes, poly-para-xylylenes are applied at very high temperatures with a vacuum-coating process. Therefore, they cost significantly more compared to other technologies.

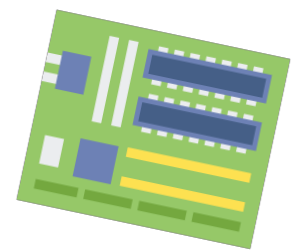
Strengths



Excellent Uniformity Regardless of Part Geometry - No Pinholes, Fillets, or Bridging



Chemical Inertness/Barrier Properties Insoluble in Organic Solvents, Acids, or Bases, with Very Low Permeability Rates



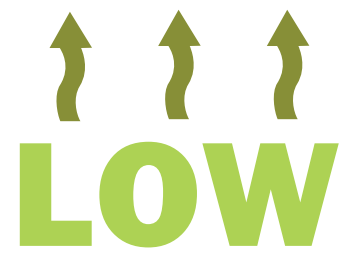
Minimal Added Mass



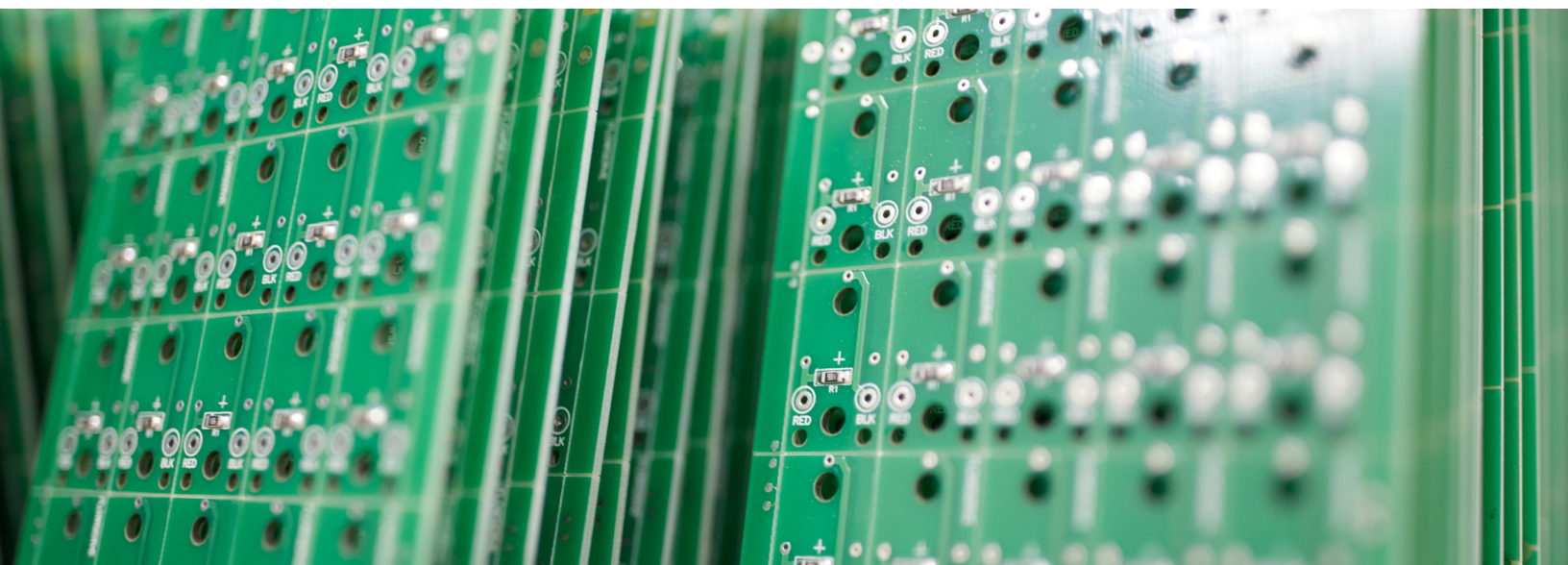
Biocompatibility Allows Use in Many Medical Applications



Low Environmental Impact Process



Low Outgassing



Weaknesses of Cure Type

Vapor Deposition Polymerization

- ▲ Parts are processed by batches in a vacuum chamber, not an in-line process
- ▲ Masking required for no-coat areas
- ▲ Coating removal and rework generally requires specific equipment, abrasion/micro-blasting most common technique
- ▲ Limited UV resistance and operating temperature limit, around 120fC [248fF] in the presence of oxygen
- ▲ Cannot be doped



Electronic Coating Technologies provides expertise in protective materials and application services within the electronic technology sectors. Service and solutions are provided for the aerospace and military, automotive, consumer and industrial, power and renewable energy, and medical industries.

www.electroniccoating.com