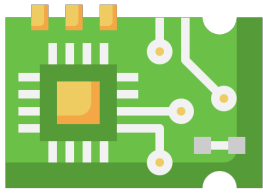


Amorphous Fluoropolymer

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.

Fluoropolymer coatings are typically ultra thin, which make them easy to remove. These conformal coatings have good resistance to oils, acids, solvents, and water. Boards that have been coated with a fluoropolymer conformal coating are hydrophobic.

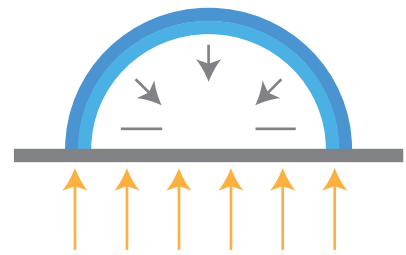
Strengths



Low Dielectric Content



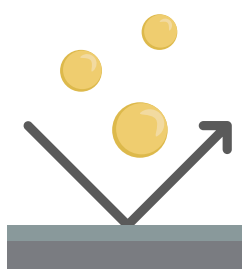
High Glass Transition Temperature



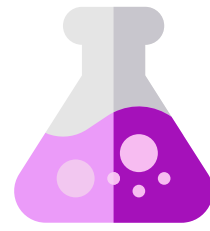
Low Surface Energy



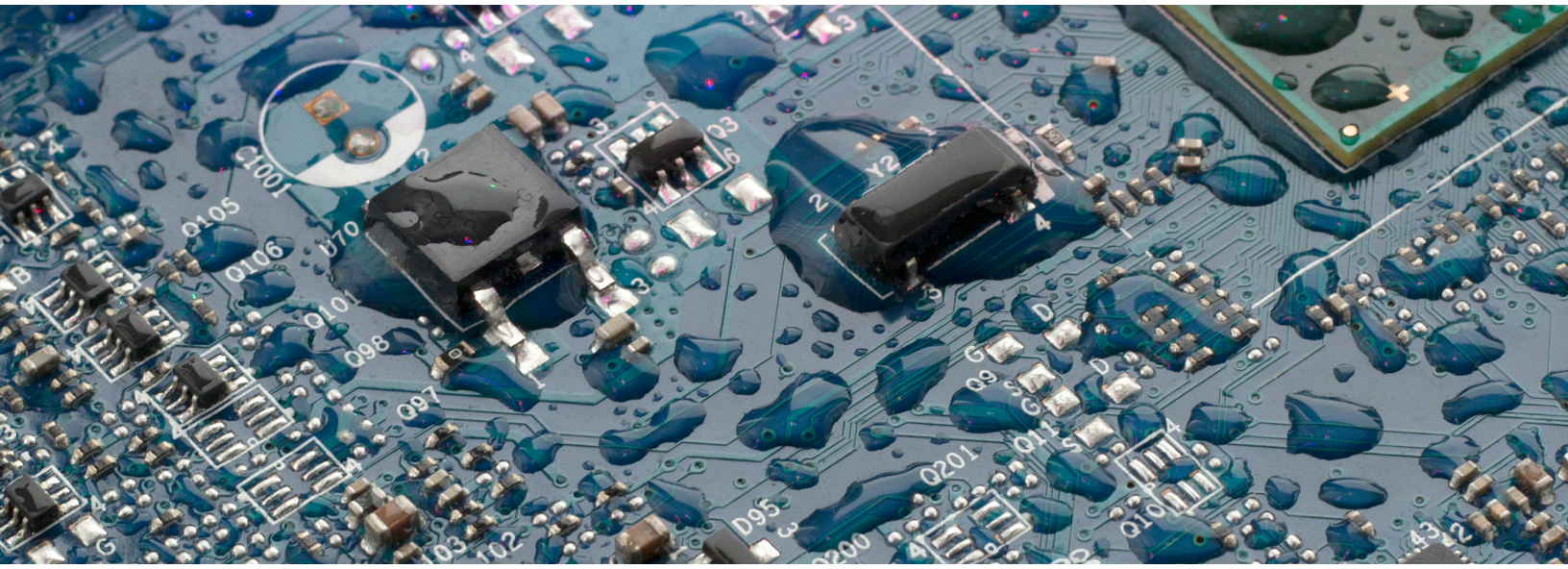
Low Water Absorption



Good Solvent & Oil Resistance



Common Acid Resistance



Weaknesses of Cure Type

Solution Deposition

- ▲ Requires special liquids for polymer swelling
- ▲ Limited solubility which limits film thickness
- ▲ May require glass temperature anneal
- ▲ Requires special surface treatment for greatest adhesion
- ▲ Poor resistance to some acids and alkalines

Vacuum Deposition

- ▲ Requires pressure of 10 Torr ' 5 Torr [0.193 PSI ' 0.097 PSI] or less
- ▲ May require glass temperature anneal
- ▲ Requires special surface treatment for greatest adhesion
- ▲ Poor resistance to some acids and alkalines
- ▲ Poor abrasion resistance



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