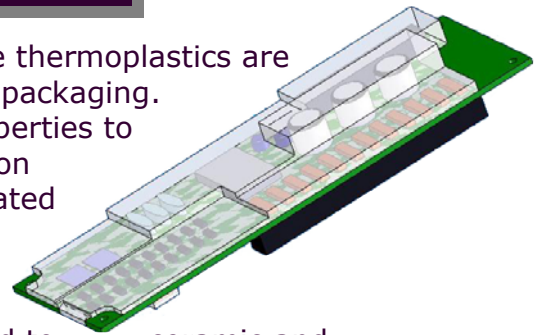


COOLPOLY® THERMALLY CONDUCTIVE PLASTICS

FOR ENCAPSULATING SEMICONDUCTOR & ELECTRONIC DEVICES

CoolPoly thermally conductive injection molding grade thermoplastics are ideal encapsulants for semiconductor and board level packaging. They offer similar electrical, thermal and physical properties to ceramics. Additionally, they are directly overmolded on components or assemblies using high volume, automated injection molding equipment to form semiconductor packages.



Historically, semiconductor packaging has been limited to ceramic and thermosetting polymers. Direct encapsulation with thermally conductive thermoplastics offers faster cycle time and desirable dielectric properties. Enhanced heat transfer in the application allows components to operate at lower temperatures or achieve higher powers without an increase in temperature.

Direct encapsulation with thermally conductive plastics provides:

- LOW THERMAL RESISTANCE—ENHANCED HEAT TRANSFER
- ELECTRICAL ISOLATION
- ENVIRONMENTAL PROTECTION—MOISTURE RESISTANCE
- HIGH TEMPERATURE STABILITY—LEAD FREE SOLDER
- MATERIAL PROPERTIES SIMILAR TO ALUMINA
- MOLDED IN FEATURES
- AUTOMATED ASSEMBLY

CoolPoly D5112 is used for direct encapsulation via injection molding of a variety of electronic components including semiconductors, integrated circuits, power converters, LEDs, and laser diodes.