

COOLPOLY® THERMALLY CONDUCTIVE PLASTICS

FOR FUNCTIONAL HEAT SINKS

CoolPoly thermally conductive injection molding grade thermoplastics are ideal for manufacturing 3-dimensional, net-shape, functional heat sink solutions. Historically, heat sinks have been 2-dimensional metallic add-ons requiring mechanical attachment and thermal coupling (interface material). Thermally conductive plastics represent the opportunity to design functional parts with heat management capability while eliminating many of the negative features of add-on metallic heat sinks.



Functional heat sinks molded from thermally conductive plastics can provide:

- LOW THERMAL RESISTANCE
- LOW COST
- 3-DIMENSIONAL COMPLEXITY
- LOW WEIGHT—40% LESS THAN ALUMINUM
- ENHANCED CONVECTION
- LOW AIR FLOW IMPEDANCE, LOW RFI/EMI PROPAGATION
- SIMPLIFIED ATTACHMENT AND BUILT-IN INTERFACE MATERIAL
- COMPONENT INTEGRATION

Heat sinks molded from CoolPoly E5101 match or exceed the performance of metallic heat sinks in many applications. Additional components can also be directly overmolded with thermally conductive plastics to eliminate parts assembly and provide excellent thermal coupling.