

A large number of small, dark, cylindrical pellets scattered across a light surface.

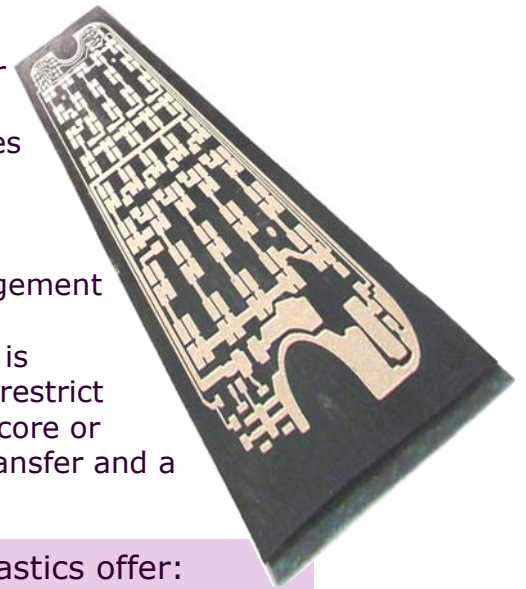
COOLPOLY®

THERMALLY CONDUCTIVE PLASTICS

FOR CIRCUIT BOARDS

Screen printable substrates, 3-dimensional circuits and molded interconnects combine multiple electronic and mechanical functions in a single injection molded part. Molded interconnects are typically designed to efficiently utilize the limited space in automotive, appliance, hand held electronic and other applications. CoolPoly thermally conductive plastics enhance the performance of molded electronic substrates by dissipating heat and reducing temperature in board mounted components.

Light emitting diodes (LEDs) and other heat generating surface mount components often require thermal management to maintain the components at acceptable operating temperatures. Board or substrate thermal management is desirable as there are space or function limitations that restrict use of add-on items like heat sinks. Ceramic and metal core or metal backed boards have been used to provide heat transfer and a dielectric surface but have design limitations.



Interconnects molded from thermally conductive plastics offer:

- HEAT TRANSFER / THERMAL MANAGEMENT
- LOWER DEVICE TEMPERATURES
- 3-DIMENSIONAL DESIGN
- IMPROVED DEVICE PERFORMANCE
- INCREASED DEVICE RELIABILITY
- LIGHT WEIGHT

Additionally, heat transfer in metal core or metal backed boards is often limited by the electrically insulating layer on the surface.

CoolPoly thermally conductive plastics offer design freedom, part consolidation, thermal management and dielectric properties optimized for substrate use. Standard methods for placing circuitry and mounting components can be used. Additional mechanical or heat transfer features are also easily incorporated in the plastic part.

CoolPoly D5108 is used in the manufacture of molded interconnects and substrates for surface mount components.