

# CoolPoly® LED Series TCP

## Thermally Conductive Plastic FOR LED General Illumination

### MANAGE your LED heat with with CoolPoly LED Series Thermally Conductive Plastics (TCP)

Light emitting diodes (LED) represent a major shift in the way heat is transferred from light sources. LEDs require thermal management since greater than 90% of the heat must be transferred by conduction.

With power densities approaching  $5 \text{ W/mm}^2$  thermal management is becoming the #1 consideration in LED lighting design. LED power density can reach 10X that of the latest microprocessor and 5X that of space shuttle re-entry. Without proper thermal management LEDs suffer decay in brightness, reduction in mean time to failure, and color shift.

The design freedom of injection molding allows heat transfer, enclosure, connector, and assembly features to be incorporated in one low cost injection molded part.

The CoolPoly LED Series TCPs provide the best thermal management and electrical isolation options for general illumination LED lighting.

- LIGHTWEIGHT—50% or greater reduction in weight compared to aluminum alloys
- RoHS/WEEE compliant—recyclable
- Injection molding reduces cost and scrap
- Superior environmental and corrosion resistance
- No warpage or sink marks



COOLPOLY® LED Series TCP\*

| Thermal Management      | Electrical Isolation   |
|-------------------------|------------------------|
| <b>E3607</b><br>14 W/mK | <b>D3610</b><br>2 W/mK |
| <b>E3603</b><br>20 W/mK | <b>D3612</b><br>6 W/mK |

\*CoolPoly LED Series thermally conductive plastics meet all the enclosure requirements for LED lighting including thermal management, electrical isolation, low weight, flame retardancy, colorability, recyclability and RoHS/WEEE/REACH compliance.