

CoolPoly® E8103

Thermally Conductive Thermoplastic Elastomer (TPE)

Description

CoolPoly E series of thermally conductive plastics transfers heat, a characteristic previously unavailable in injection molding grade polymers. CoolPoly is lightweight, netshape moldable and allows design freedom in applications previously restricted to metals. The E series is electrically conductive and provides inherent EMI/RFI shielding characteristics.

| Physical Properties | Value | Unit | Test Standard |
|--------------------------------|--------|----------------------|---------------|
| Density | 1130 | kg/m ³ | ISO 1183 |
| Mold Shrinkage – Parallel | 1.5 | % | ISO 294-4 |
| Mold Shrinkage – Normal | 2.1 | % | ISO 294-4 |
| Hardness | 38 | Shore A | ISO 868 |
| Mechanical Properties | Value | Unit | Test Standard |
| Tensile Strength | 1.28 | MPa | ISO 37 |
| Strain @ Break | 57 | % | ISO 37 |
| Tear Strength – Method B | 14 | kN/m | ISO 34-1 |
| Thermal Properties | Value | Unit | Test Standard |
| Thermal Conductivity, In-Plane | 5 | W/mK | ASTM E1461 |
| Thermal Diffusivity, In-Plane | 0.0249 | cm ² /sec | ASTM E1461 |
| Specific Heat | 1.94 | J/g°C | ASTM E1461 |