

## CoolPoly® D4302

### Thermally Conductive Copolyester Elastomer (COPE)

#### Description

CoolPoly D 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 D series is electrically non-conductive and can be used for its dielectric properties.

Physical Properties	Value	Unit	Test Standard
Density	1470	kg/m <sup>3</sup>	ISO 1183
Mold Shrinkage – Parallel	0.7	%	ISO 294-4
Mold Shrinkage – Normal	1.0	%	ISO 294-4
Hardness	73	Shore D	ISO 868
Mechanical Properties	Value	Unit	Test Standard
Tensile Modulus	4780	MPa	ISO 527-1
Tensile Strength @ Yield	40	MPa	ISO 527-1
Strain @ Yield	2.2	%	ISO 527-1
Flexural Modulus	3330	MPa	ISO 178
Flexural Strength	61	MPa	ISO 178
Charpy Unnotched (23°C)	24.5	kJ/m <sup>2</sup>	ISO 179-1
Charpy Notched (23°C)	2.95	kJ/m <sup>2</sup>	ISO 179-1
Thermal Properties	Value	Unit	Test Standard
Thermal Conductivity, In-Plane	2.3	W/mK	ASTM E1461
Thermal Diffusivity, In-Plane	0.0118	cm <sup>2</sup> /sec	ASTM E1461
Specific Heat	1.36	J/g°C	ASTM E1461