

COOLPOLY® TKX1010D - PC

Experimental Grade. Please contact your Celanese representative for further information.

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.

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	130	°C	ISO 75-1, -2
Thermal conductivity, flow	0.8	W/(m K)	ASTM E 1461
Thermal conductivity, thruplane	0.4	W/(m K)	ASTM E 1461
Specific heat	1300	J/(kg K)	ASTM E 1461

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	3700	MPa	ISO 527-2/1A
Tensile stress at break, 50mm/min	45	MPa	ISO 527-2/1A
Tensile strain at break, 50mm/min	7.8	%	ISO 527-2/1A
Flexural modulus, 23°C	3400	MPa	ISO 178
Flexural stress at 3.5% strain	79	MPa	ISO 178
Charpy impact strength, 23°C	204	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	8	kJ/m ²	ISO 179/1eA

Physical properties	Value	Unit	Test Standard
Density	1250	kg/m ³	ISO 1183