

# COOLPOLY® D8102

CoolPoly D8102 is a thermally conductive, electrically non-conductive TPE based grade 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.

#### Typical mechanical properties

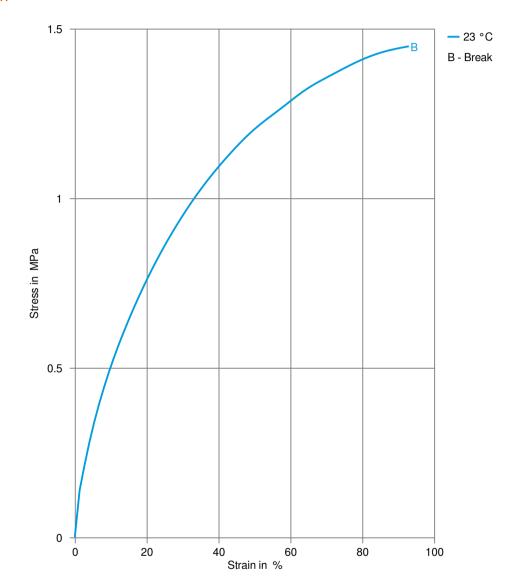
Tensile Modulus	7	MPa	ISO 527-1/-2
Stress at break, 5mm/min	1.7	MPa	ISO 527-1/-2
Strain at break, 5mm/min	78.7	%	ISO 527-1/-2
Poisson's ratio	0.44		
Shore A hardness, 3s	56		ISO 48-4 / ISO 868
Thermal properties			
Thermal conductivity in plane, in flow	2.8	W/(m K)	ASTM E 1461
Thermal conductivity in plane, cross flow		W/(mK)	ASTM E 1461
Thermal conductivity through plane	1.3	W/(m K)	ASTM E 1461
Flammability			
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	1.36	mm	UL 94
Other properties			
Density	1200	kg/m <sup>3</sup>	ISO 1183
Injection			
Drying Temperature	65	°C	
Drying Time, Dehumidified Dryer	1 - 2		
Max. mould temperature	20 - 50	°C	
Back pressure	1	MPa	
Injection speed	medium-fast		





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Stress-strain

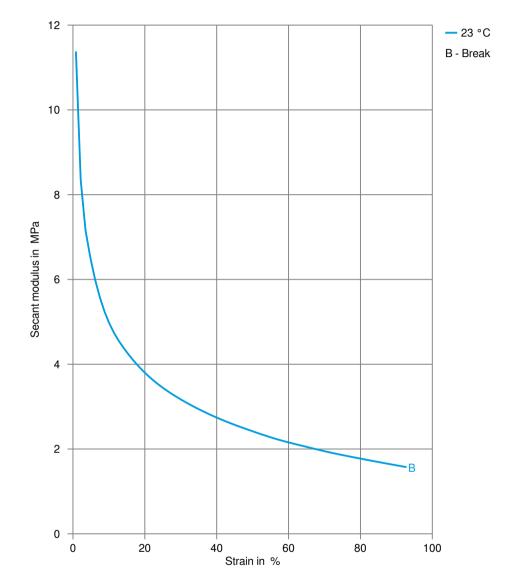


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#### Secant modulus-strain



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True stress-strain

