

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	3.2 W/(m K)	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/m³	ISO 1183
---------	------------	----------

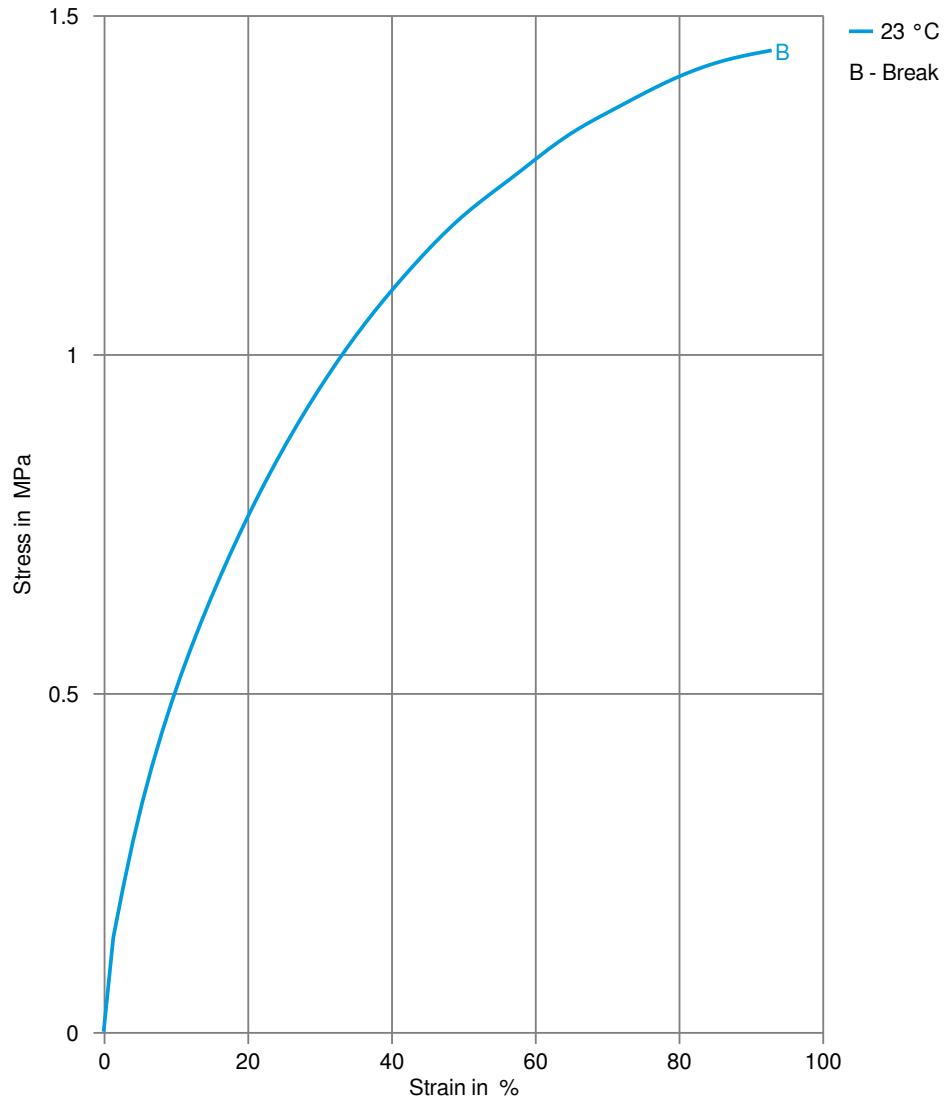
Injection

Drying Temperature	65 °C
Drying Time, Dehumidified Dryer	1 - 2 h
Max. mould temperature	20 - 50 °C
Back pressure	1 MPa
Injection speed	medium-fast



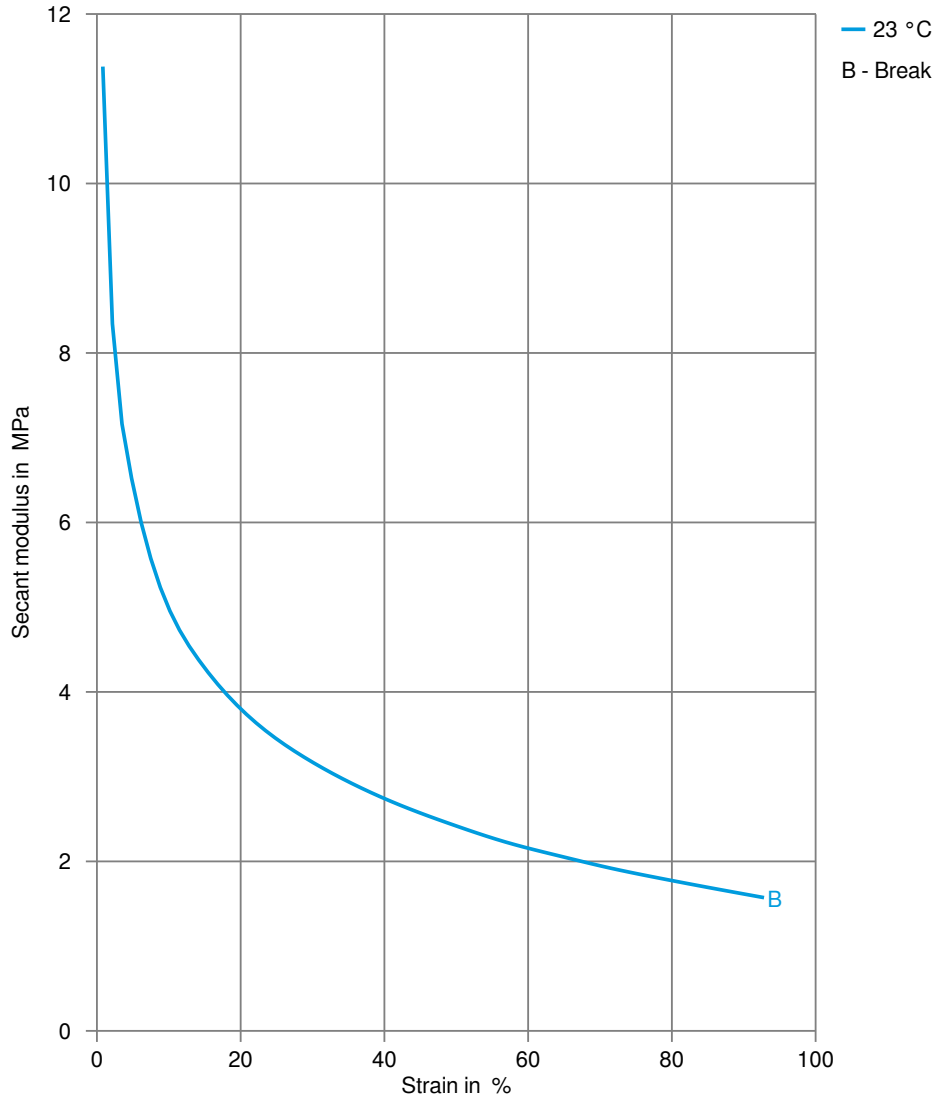
COOLPOLY® D8102

Stress-strain



COOLPOLY® D8102

Secant modulus-strain



COOLPOLY® D8102

True stress-strain

