

COOLPOLY® D5522

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CoolPoly® D5522 offers thermal conductivity, excellent mechanical strength, surface appearance, low warpage, and excellent dimensional stability. Application for this grade is for a part with thin wall design in automotive and electronics. The D series is electrically non-conductive and can be used for its dielectric properties.

Product information

Resin Identification	LCP-MD30	ISO 1043
Part Marking Code	>LCP-MD30<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.1 %	ISO 294-4, 2577
Moulding shrinkage, normal	0.6 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	14000 MPa	ISO 527-1/-2
Tensile stress at break, 50mm/min	140 MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	2.7 %	ISO 527-1/-2
Flexural modulus	13000 MPa	ISO 178
Flexural strength	160 MPa	ISO 178
Charpy impact strength, 23°C	29 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	10 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.33 ^[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	330 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	240 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	8 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	60 E-6/K	ISO 11359-1/-2
Thermal conductivity, flow	2.5 W/(m K)	ISO 22007-2
Thermal conductivity, crossflow	1 W/(m K)	ISO 22007-2
Thermal conductivity, through plane	0.6 W/(m K)	ISO 22007-2
Specific heat capacity of melt	1380 J/(kg K)	ISO 22007-4

Flammability

Burning Behav. at thickness h	V-0 class	IEC 60695-11-10
Thickness tested	0.4 mm	IEC 60695-11-10
UL recognition	yes	UL 94

Electrical properties

Relative permittivity, 1MHz	3.63	IEC 62631-2-1
Dissipation factor, 1MHz	280 E-4	IEC 62631-2-1
Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
Surface resistivity	1E14 Ohm	IEC 62631-3-2
Electric strength	30 kV/mm	IEC 60243-1
Comparative tracking index, 100 drops	175	IEC 60112

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Physical/Other properties

Humidity absorption, 2mm
Density

0.03 %
1640 kg/m³

Sim. to ISO 62
ISO 1183

Characteristics

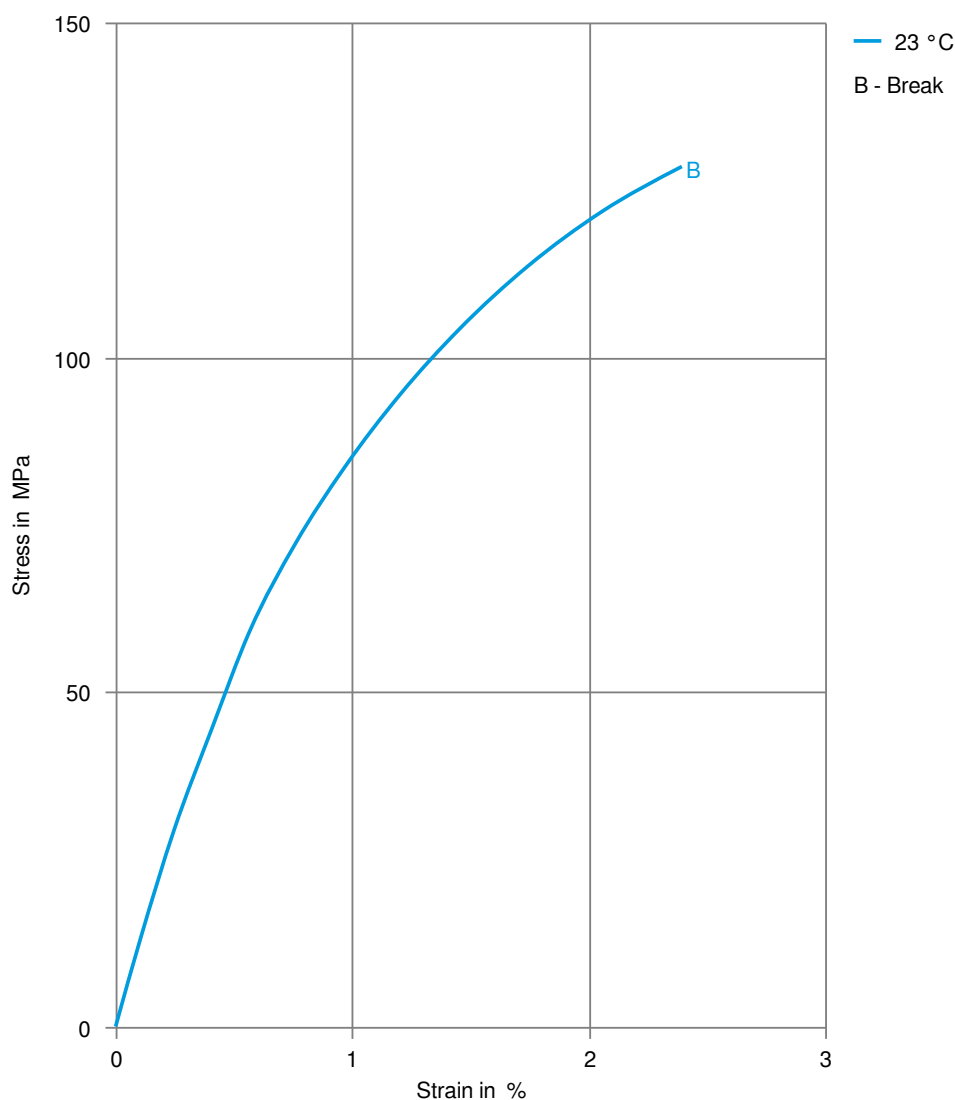
Processing

Injection Moulding

Special characteristics

Flame retardant, Specialty appearance, High Flow, Low Warpage, Lead-free soldering resistant, Light weight

Stress-strain



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Secant modulus-strain

