

ZENITE® ZE55205 - LCP

Description

Zenite® ZE55205 is a black reinforced LCP resin with a high dielectric constant.

Physical properties	Value	Unit	Test Standard
Density	118	lb/ft ³	ISO 1183
Molding shrinkage, parallel	0.1	%	ISO 294-4, 2577
Molding shrinkage, normal	0.6	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2.07E6	psi	ISO 527-2/1A
Tensile stress at break, 5mm/min	18100	psi	ISO 527-2/1A
Tensile strain at break, 5mm/min	2.5	%	ISO 527-2/1A
Flexural modulus, 23°C	1.76E6	psi	ISO 178
Flexural strength, 23°C	27600	psi	ISO 178
Charpy impact strength, 23°C	17.1	ft-lb/in ²	ISO 179/1eU
Charpy notched impact strength, 23°C	14.3	ft-lb/in ²	ISO 179/1eA
Izod impact notched, 23°C	13.8	ft-lb/in ²	ISO 180/1A
Izod impact unnotched, 23°C	16.6	ft-lb/in ²	ISO 180/1U

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	529	°F	ISO 75-1, -2

Electrical properties	Value	Unit	Test Standard
Relative permittivity, 1MHz	4.52	-	IEC 60250
Dissipation factor, 1MHz	190	E-4	IEC 60250

Typical injection moulding processing conditions

Pre Drying	Value	Unit	Test Standard
Necessary low maximum residual moisture content	0.01	%	-
Drying time	5	h	-
Drying temperature	≥302	°F	-
Temperature	Value	Unit	Test Standard
Hopper temperature	68 - 86	°F	-
Feeding zone temperature	104 - 140	°F	-
Zone1 temperature	608 - 626	°F	-
Zone2 temperature	635 - 653	°F	-
Zone3 temperature	635 - 653	°F	-
Zone4 temperature	635 - 653	°F	-
Nozzle temperature	635 - 653	°F	-
Melt temperature	626 - 662	°F	-
Mold temperature	176 - 248	°F	-
Pressure	Value	Unit	Test Standard
Injection pressure	500 - 1500	bar	-
Hold pressure	500 - 1500	bar	-
Back pressure max.	30	bar	-

