

TECACOMP® PEEK LDS black 3980

Polyetheretherketone

Ensinger GmbH

Message:

Main features
developed for the LPKF-LDS® process
Target Industries
electrical engineering
mechanical engineering
medical technology

General Information			
Filler / Reinforcement	Mineral filler		
Uses	Laser Direct Structuring		
	Medical/nursing supplies		
Appearance	Black		
Forms	Particles		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.70	g/cm³	
Apparent Density	0.90	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR) (380°C/10.0 kg)	70	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (380°C/5.0 kg)	34.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Transverse flow	0.48	%	ISO 294-4
Flow	0.38	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	< 0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	11500	MPa	ISO 527-2/50
Tensile Stress	105	MPa	ISO 527-2/50
Tensile Strain (Break)	2.0	%	ISO 527-2/50
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength	25	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	218	°C	ISO 75-2/A
Glass Transition Temperature	143	°C	DIN 53765
Melting Temperature	343	°C	DIN 53765
Linear thermal expansion coefficient			ISO 11359-2

Flow: 23 to 100°C	1.5E-5	cm/cm/°C	ISO 11359-2
Flow: 200 to 260°C	5.0E-5	cm/cm/°C	ISO 11359-2
Flow: 260 to 300°C	6.7E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 100°C	2.5E-5	cm/cm/°C	ISO 11359-2
Horizontal: 200 to 260°C	7.2E-5	cm/cm/°C	ISO 11359-2
Horizontal: 260 to 300°C	9.5E-5	cm/cm/°C	ISO 11359-2
Service Temperature			
long term	260	°C	
short term	300	°C	
Adhesion Strength - metal path	19.4	MPa	
Lazer Marking			
Forward movement	1.8 - 2.4	m/sec	
Frequency	120 - 180	kHz	
Power	2.00 - 8.00	Watts	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	5.8E+12	ohms	DIN EN 61340
Volume Resistivity	5.8E+13	ohms·cm	DIN EN 61340
Dielectric Strength	18	kV/mm	IEC 60243-1
Comparative Tracking Index	< 250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flammability Classification	V-0		IEC 60695-11-10, -20
Injection	Nominal Value	Unit	
Drying Temperature	140 - 160	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.020	%	
Processing (Melt) Temp	360 - 400	°C	
Mold Temperature	160 - 210	°C	

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



WECHAT