

LP-150-LDS

is a glass fiber and mineral filled PPS compound suitable for LPKF Laser Direct Structuring (LDS) process.

Color: Black

Properties of LP-150-LDS

Properties	Test Method	Unit	LP-150-LDS
General Information			GF/Filler
Physical			
Density	ISO 1183	g/cm ³	1.81
Water absorption, 23°C /24hrs.	ISO 62	%	0.02
Mold shrinkage ^a	ISO 294-4	%	0.3 / 1.0
Mechanical			
Tensile strength	ISO 527-1, -2	MPa	120
Tensile modulus	ISO 527-1, -2	GPa	11.3
Tensile strain at break	ISO 527-1, -2	%	1.3
Flexural strength	ISO 178	MPa	170
Flexural modulus	ISO 178	GPa	11.3
Flexural strain at break	ISO 178	%	1.6
Charpy impact strength notched	ISO 179/1eA	kJ/m ²	3
unnotched	ISO 179/1eU	kJ/m ²	19
Co-eff. of friction ^b , static / dynamic	-	-	- / -
Thermal			
Heat deflection temperature, 1.80 MPa	ISO 75-1, -2	°C	> 265
Co-eff. of linear thermal expansion ^a , -50~50°C	ISO 11359-1	x 10 ⁻⁵ /K	1.9 / 4.0
Co-eff. of linear thermal expansion ^a , 100~200°C	ISO 11359-1	x 10 ⁻⁵ /K	1.9 / 10.3
Flammability ^c / thickness (mm)	UL-94	-	V-0 / 0.75
Electrical			
Dielectric strength, t=1.0mm	IEC 60243-1	kV/mm	20
Dielectric constant, 1MHz	IEC 60250	-	4
Dissipation factor, 1MHz	IEC 60250	-	0.006
Comparative tracking index (CTI)	IEC 60112	V	-
Volume resistivity	IEC 60093	Ω.cm	10 ¹⁶
Process Conditions			
Cylinder temperature	-	°C	290-320
Mold temperature	-	°C	130-150

a: Flow direction / Transverse direction, b: P=150kPa, V=0.3m/s, PPS vs. carbon steel

c: Internal test result at DIC lab