TECACOMP® PPS TC black 4084

Polyphenylene Sulfide

Ensinger GmbH

Message:

Main features
high thermal conductivity
Target Industries
electrical engineering
LED lighting technology
mechanical engineering
automotive industry

General Information			
Filler / Reinforcement	Graphite fiber reinforced material		
Features	Heat conduction		
Uses	LEDs Lighting Applications Application in Automobile Field		
Appearance	Black		
Forms	Particles		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.60	g/cm³	
Melt Mass-Flow Rate (MFR) (316°C/5.0 kg)	50	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (316°C/5.0 kg)	30.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Transverse flow	0.63	%	ISO 294-4
Flow	0.58	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	< 0.10	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	9500	MPa	ISO 527-2/50
Tensile Stress	40.0	MPa	ISO 527-2/50
Tensile Strain (Break)	0.50	%	ISO 527-2/50
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength	6.0	kJ/m²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature	90.0	°C	DIN 53765
Melting Temperature	280	°C	DIN 53765
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 80°C	1.8E-5	cm/cm/°C	ISO 11359-2

Flow: 100 to 200°C	4.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	2.5E-5	cm/cm/°C	ISO 11359-2
Lateral: 100 to 200°C	5.7E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity			DIN EN 821
-- [1]	2.0	W/m/K	DIN EN 821
-- [2]	7.3	W/m/K	DIN EN 821
Service Temperature			
long term	230	°C	
short term	260	°C	
Electrical Conductivity	5.30	S/m	ISO 3915
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.4E+5	ohms	DIN EN 61340
Volume Resistivity	19	ohms·cm	ISO 3915
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flammability Classification	V-0		IEC 60695-11-10, -20
Injection	**Nominal Value**	**Unit**	
Drying Temperature	140 - 150	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.050	%	
Processing (Melt) Temp	300 - 370	°C	
Mold Temperature	140 - 200	°C	
NOTE			
1.	Through-plane		
2.	In-plane		

Recommended distributors for this material

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