

TECACOMP® PBT TC white 4037

Polybutylene Terephthalate
Ensinger GmbH

Message:

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

General Information			
Filler / Reinforcement	Mineral filler		
Features	Heat conduction		
	Insulation		
Uses	LEDs		
	Lighting Applications		
	Application in Automobile Field		
Appearance	White		
Forms	Particles		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.73	g/cm³	
Apparent Density	0.92	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	42	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	50.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Transverse flow	1.5	%	ISO 294-4
Flow	1.5	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	< 0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	7300	MPa	ISO 527-2/50
Tensile Stress	72.0	MPa	ISO 527-2/50
Tensile Strain (Break)	2.0	%	ISO 527-2/50
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength	40	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method

Heat Deflection Temperature (1.8 MPa, Unannealed)	167	°C	ISO 75-2/A
Glass Transition Temperature	60.0	°C	DIN 53765
Melting Temperature	225	°C	DIN 53765
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 40°C	5.9E-5	cm/cm/°C	ISO 11359-2
Flow: 60 to 110°C	8.6E-5	cm/cm/°C	ISO 11359-2
Horizontal: 23 to 40°C	5.9E-5	cm/cm/°C	ISO 11359-2
Horizontal: 60 to 110°C	8.5E-5	cm/cm/°C	ISO 11359-2
Specific Heat	990	J/kg/°C	DIN EN 821
Thermal Conductivity ¹	1.0	W/m/K	DIN EN 821
Service Temperature			
long term	110	°C	
short term	170	°C	
Thermal Diffusivity			DIN EN 821
In-plane	0.500	cSt	DIN EN 821
Through-plane	0.500	cSt	DIN EN 821
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	4.5E+12	ohms	DIN EN 61340
Volume Resistivity	3.1E+14	ohms·cm	DIN EN 61340
Flammability	Nominal Value	Unit	Test Method
Flammability Classification	HB		IEC 60695-11-10, -20
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	3.0 - 6.0	hr	
Suggested Max Moisture	0.020	%	
Processing (Melt) Temp	240 - 290	°C	
Mold Temperature	130	°C	
NOTE			
1.	In-plane		

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