POTICON RBA313N

Polyphenylene Sulfide

Otsuka Chemical Co., Ltd.

Message:

The Poticon series features a potassium titanate micro-filler compounded in thermoplastic resins to provide outstanding micro-reinforcement and dimensional stability. The excellent surface smoothness of these compounds limits friction toward opposing materials, reducing wear and allowing for greaseless applications. Moreover, as Poticon diminishes damage toward the mold and metal die and offers excellent recyclability, it also decreases processing costs.

Advantages

Microscopic reinforcement

Superior friction sliding and wear reduction

Excellent dimensional accuracy and surface smoothness

Highly recyclable

Applications

Automotive Parts (gears, bearings)

LED Reflectors

Watch Parts (gears, ground plane)

Camera (image stabilization parts)

Sliding Parts (gears, wheel bearing)

Camera Module Parts

Motor Parts (cog-wheels, bearings)

RBA313N Property: Slide, Conductive property

General Information					
UL YellowCard	E96773-100207275				
Features	High Dimensional Stability				
	Conductivity				
	Low friction coefficient				
	Recyclable materials				
Uses	LEDs				
	Gear				
	Application in Automobile Field				
	Camera application				
	Bearing				
Processing Method	Injection molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.55	g/cm³	ASTM D792		
Molding Shrinkage					
Flow	0.90	%			
Transverse flow	1.3	%			
Water Absorption (Equilibrium)	0.020	%	ASTM D570		
Hardness	Nominal Value	Unit	Test Method		
Rockwell Hardness (M-Scale)	75		ASTM D785		
Mechanical	Nominal Value	Unit	Test Method		

Tensile Strength	49.0	MPa	ASTM D638
Tensile Elongation (Break)	1.6	%	ASTM D638
Flexural Modulus	5400	MPa	ASTM D790
Flexural Strength	69.0	MPa	ASTM D790
Coefficient of Friction (vs. Steel - Dynamic)	0.18		
Abrasion Loss			
1	1.00	10^-3 mm³/N·km	
of counterpart ²	0.00	10^-3 mm³/N·km	
Heat Distortion	220	°C	ASTM D648
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	25	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow	3.2E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+4	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94
Injection	Nominal Value	Unit	
Processing (Melt) Temp	290 - 320	°C	
Mold Temperature	120 - 150	°C	
Injection Pressure	70.0 - 100	MPa	
NOTE			
1.	Surface pressure: 1MPa		
2.	Slipping velocity: 0.3m/sec		

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