POTICON VT6

Liquid Crystal Polymer

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)
VT6 Property: High strength, High rigidity, High flowability

General Information			
Features	High Dimensional Stability Low friction coefficient Rigidity, high High strength Recyclable materials High liquidity		
Uses	LEDs Gear Application in Automobile Field Camera application Bearing		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.69	g/cm³	ASTM D792
Molding Shrinkage			
Flow	0.10	%	
Transverse flow	0.50	%	
Water Absorption (Equilibrium)	0.080	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	75		ASTM D785

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	235	MPa	ASTM D638
Tensile Elongation (Break)	6.3	%	ASTM D638
Flexural Modulus	13700	MPa	ASTM D790
Flexural Strength	212	MPa	ASTM D790
Coefficient of Friction (vs. Steel - Dynamic)	0.37		
Abrasion Loss			
-- [1]	14.3	10^-3 mm³/N·km	
of counterpart [2]	0.00	10^-3 mm³/N·km	
Heat Distortion	235	°C	ASTM D648
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	250	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
CLTE - Flow	1.3E-5	cm/cm/°C	ASTM D696
Injection	**Nominal Value**	**Unit**	
Processing (Melt) Temp	280 - 320	°C	
Mold Temperature	80 - 120	°C	
Injection Pressure	50.0 - 60.0	MPa	
NOTE			
1.	Surface pressure: 1MPa		
2.	Slipping velocity: 0.3m/sec		

Recommended distributors for this material

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