

# POTICON BT212N

Polybutylene Terephthalate

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)

BT212N Property: Slide, Flame resistance

General Information			
UL YellowCard	E96773-253466		
Features	High Dimensional Stability		
	Low friction coefficient		
	Recyclable materials		
	Flame retardancy		
Uses	LEDs		
	Gear		
	Application in Automobile Field		
	Camera application		
	Bearing		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.46	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage			
Flow	1.8	%	
Transverse flow	2.0	%	
Water Absorption (Equilibrium)	0.070	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	78		ASTM D785
Mechanical	Nominal Value	Unit	Test Method

Tensile Strength	69.0	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	3900	MPa	ASTM D790
Flexural Strength	108	MPa	ASTM D790
Coefficient of Friction (vs. Steel - Dynamic)	0.20		
Abrasion Loss			
-- <sup>1</sup>	1.00	10 <sup>-3</sup> mm <sup>3</sup> /N·km	
of counterpart <sup>2</sup>	0.00	10 <sup>-3</sup> mm <sup>3</sup> /N·km	
Heat Distortion	150	°C	ASTM D648
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	31	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow	8.4E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value		Test Method
Flame Rating	V-0		UL 94
Injection	Nominal Value	Unit	
Processing (Melt) Temp	240 - 270	°C	
Mold Temperature	60 - 100	°C	
Injection Pressure	50.0 - 100	MPa	
NOTE			
1.	Surface pressure: 1MPa		
2.	Slipping velocity: 0.3m/sec		

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#### Recommended distributors for this material

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