

Torayca™ A512 X02 N3 PPS

TECHNICAL DATA

Product Description

CF10%, Low wear and friction, Flame retardant

Uses	• Gears	• Printer	• Valves/Valve Parts
Processing Method	• Injection Molding		
ISO Designation	• >PPS-F-CF10<		
Type	• Short carbon fiber reinforced PPS		

ASTM & ISO Properties

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.53	g/cm³	ISO 1183
Molding Shrinkage ¹			Internal Method
Across Flow : 3.00 mm	0.80	%	
Flow : 3.00 mm	0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (23°C)	120	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	1.5	%	ISO 527-2
Flexural Modulus (23°C)	10000	MPa	ISO 178
Flexural Stress (23°C)	170	MPa	ISO 178
Amount of Wear ²			Suzuki Method
vs. S45C	0.2	mg/hr	
vs. SUS	0.5	mg/hr	
Coefficient of Friction ²			Suzuki Method
vs. S45C	0.15		
vs. SUS	0.06		
Limiting Pressure Velocity			Suzuki Method
vs. S45C	2.9	MPa·m/s	
vs. SUS	2.0	MPa·m/s	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	4.5	kJ/m²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	> 260	°C	
Melting Temperature	278	°C	DSC
CLTE			ISO 11359-2
Flow	2.1	cm ³ /cm/°C	
Transverse	2.9	cm ³ /cm/°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+2	ohms·m	JIS K7194
Surface Resistivity	10000	ohms/cm²	JIS K7194
Flammability	Nominal Value	Unit	Test Method
Flame Rating ³ (Equivalent)	V-0		Internal Method

Notes

¹ 80x80x3mm

² 1MPa, 0.33 m/s

³ UL94

