

Quadrant EPP Duratron® PI D7015G PI, bearing grade (ISO Data)

Category : Polymer , Thermoplastic , Polyimide, Thermoplastic

Material Notes:

This grade contains 15 % graphite, added to provide long wear and low friction Good performance at elevated temperature (>425 °C) Good chemical resistance Easily machined from a broad range of shapes - rod, sheet, tubular forms High strength, tough and dimensionally stable

Order this product through the following link:

http://www.lookpolymers.com/polymer_Quadrant-EPP-Duratron-PI-D7015G-PI-bearing-grade-ISO-Data.php

Physical Properties	Metric	English	Comments
Density	1.46 g/cc	0.0527 lb/in ³	ISO 1183-1
Moisture Absorption at Equilibrium	1.3 %	1.3 %	50% RH
Water Absorption at Saturation	3.0 %	3.0 %	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell E	84	84	ISO 2039-2
Hardness, Shore D	86	86	
Ball Indentation Hardness	225 MPa	32600 psi	ISO 2039-1
Tensile Strength	67.0 MPa	9720 psi	at Break (NYP); ISO 527-1/-2
Elongation at Break	2.0 %	2.0 %	ISO 527-1/-2
Tensile Modulus	4.90 GPa	711 ksi	ISO 527-1/-2
Flexural Strength	100 MPa	14500 psi	
Compressive Strength	44.0 MPa	6380 psi	ISO 604
	@Strain 1 %	@Strain 1 %	
	81.0 MPa	11700 psi	ISO 604
	@Strain 2 %	@Strain 2 %	
	145 MPa	21000 psi	ISO 604
	@Strain 5 %	@Strain 5 %	
K Factor (ISO)	55 µm/km	55 µm/km	
Charpy Impact Unnotched	1.00 J/cm ²	4.76 ft-lb/in ²	ISO 179-1/1eU
Charpy Impact, Notched	0.150 J/cm ²	0.714 ft-lb/in ²	ISO 179-1/1eA

Coefficient of Friction, Dynamic Mechanical Properties	0.25 - 0.40 Metric	0.25 - 0.40 English	Comments
Limiting Pressure Velocity	0.440 MPa-m/sec	12600 psi-ft/min	at 1 m/s unlubricated
	1.20 MPa-m/sec	34300 psi-ft/min	at 0.1 m/s unlubricated

Thermal Properties	Metric	English	Comments
CTE, linear	36.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	20.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@ Temperature 23.0 - 100 $^\circ\text{C}$	@ Temperature 73.4 - 212 $^\circ\text{F}$	
Thermal Conductivity	0.390 W/m-K	2.71 BTU-in/hr-ft ² - $^\circ\text{F}$	
Maximum Service Temperature, Air	240 $^\circ\text{C}$	464 $^\circ\text{F}$	Continuous
Deflection Temperature at 1.8 MPa (264 psi)	365 $^\circ\text{C}$	689 $^\circ\text{F}$	ISO 75-1/-2
Glass Transition Temp, Tg	365 $^\circ\text{C}$	689 $^\circ\text{F}$	DSC, 20 $^\circ\text{C}/\text{min.}$; ISO 11357-1/-2
Flammability, UL94	V-0	V-0	
Oxygen Index	47 %	47 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Surface Resistivity per Square	≤ 10000 ohm	≤ 10000 ohm	IEC 60093
Dielectric Strength	13.0 kV/mm	330 kV/in	

Compliance Properties	Metric	English	Comments
3A-Dairy	No	No	
European Food 1935/2004	No	No	
FDA	No	No	
USP Class VI	No	No	

Chemical Resistance Properties	Metric	English	Comments
Acids, Strong (pH 1-3)	Limited	Limited	
Acids, Weak	Acceptable	Acceptable	
Alcohols	Acceptable	Acceptable	
Alkalies, Strong (pH 11-14)	Unacceptable	Unacceptable	
Alkalies, Weak	Limited	Limited	

Chemical Resistance Properties	Metricable	Englishable	Comments
Conductive / Static Dissipative	Yes	Yes	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Limited	Limited	
Hydrocarbons - Aliphatic	Acceptable	Acceptable	
Hydrocarbons - Aromatic	Acceptable	Acceptable	
Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Acceptable	Acceptable	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China