

POLYAMIDE

Rods



Polyamide rods, square, and profiles are manufactured using the Extrusion Technique and hence have excellent physical and Mechanical properties. Polyamide offers good machinability for all types of metalworking equipment including lathes, grinders, millers and more. It is recommended to use sharp cutting tools, high machining speeds together with relatively slow feed. Polyamide rods are used in various industrial applications including textile, railways, automobile, food processing, electrical and electronics, defence, appliance manufacturing industries and more.

Characteristics

- Self Lubricating
- Shock resistance
- Dimensional stability
- Noise reduction
- High service temperature
- Excellent machining properties

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Performance and test conditions	Test Method	Unit	Typical Values
Mechanical properties			
Notched impact strenght of cantilever beam, 23 C°	ASTM D256	KJ/m ²	8
Yield tensile strenght, 23 C°, 50mm/min	ASTM D638	Mpa	75
Elongation at break, 23 C°, 50mm/min	ASTM D638	%	5
The bending strenght, 23 C°, 2mm/min	ASTM 790	Map	90
Bending modulus, 23 C°, 2mm/min	ASTM 790	Map	2200
shore hardness D	ASTM D2240	-	80
The Density	ISO 1183	g/cm ³	1.13
Thermal Performance			
Thermal deformation temperature (HDT) (0.45Mpa)	ISO 75	C°	70
Melting point	-	C°	220
Long term operating temperature	-	C°	80
Short-term operating temperature	-	C°	110
Thermal conductivity	DIN 52612-1	W/(K-M)	0.23
Linear expansion coefficient	ASTM D696	10-5-1/K	8
Electrical Performance			
Dielectric strenght	ASTM D150	KV-mm	25
Dielectric loss coefficient	ASTM D150	-	0.032
The volume resistance	ASTM D257	Ω cm	10 ¹⁵
The surface resistance	ASTM D257	Ω	10 ¹⁵
Dielectric constant	ASTM D149	-	4.2