P84® NT1

Thermoplastic Polyimide

Evonik Industries AG

Message:

Advantages of Polyimide P84®NT
To overcome the above-mentioned limitations, Evonik Fibres GmbH is now offering Polyimide P84®NT in powder or granulate form, which is processable by employing common sinter technologies such as hot compression moulding or direct forming. The high mechanical stability and the impact resistance of P84®NT parts ensure good machinability with standard tools.
Parts made of Polyimide P84®NT are excellent performers in thermally and mechanically stressed applications. This novel material features a high glass transition temperature of 337-364°C and a rigid structure (3705 MPa flexural modulus, 188 MPa strength in a three-point-bending experiment), combined with a high elongation at break of over 11 percent.

General Information	
Features	Good Creep Resistance
	Good Wear Resistance
	High Heat Resistance
	High Impact Resistance
	High Rigidity
	High Strength
	Low Friction
	Machinable
Uses	Aerospace Applications
	Automotive Applications
	Bearings
	Bushings
	Gears
	Industrial Applications
	Seals
	Valves/Valve Parts
Forms	Granules
	Powder
Processing Method	Compression Molding
	Sintering

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3580	MPa	ISO 527-2
Tensile Stress	140	MPa	ISO 527-2
Tensile Strain (Break)	10	%	ISO 527-2
Compressive Modulus	1960	MPa	ISO 604

Compressive Stress	470	MPa	ISO 604
Compressive Strain at Break	58	%	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	6.0	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength	40	kJ/m^2	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	343	°C	ISO 75-2/B
1.8 MPa, Unannealed	319	°C	ISO 75-2/Af
Glass Transition Temperature	337	°C	DSC
Electrical	Nominal Value	Unit	Test Method
Electric Strength [1]	22	kV/mm	IEC 60243-1
NOTE			
1.	AC		

Recommended distributors for this material

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