



Technical Datasheet

Dexnyl[®] PBI SF_37

Features:

- Ultra-high performance plastic compliant with NASA & AFML
- Thermal decomposition temperature: >600°C (inert)
- Glass transition temperature: ~425°C
- Heat deflection temperature: ~410°C
- Excellent mechanical properties
- Good tribological properties

Property	Standard	Unit	Dexnyl [®] PBI SF	Dexnyl [®] PBI SF EC	Dexnyl [®] PBI + CF SF
Tensile strength	ISO 527	MPa	160	100	160
Elongation	ISO 527	%	3.0	1.5	1.5
Flexural strength	ISO 178	MPa	220	150	245
Flexural modulus	ISO 178	GPa	6.5	7.0	9.5
Charpy impact strength, notched	ISO 179-1	kJ m ⁻²	4.0		3.5
Surface resistance	ANSI/ESD STM11.13	Ω	> 10 ¹³	~10 ⁴	< 10 ³
Water absorption (23°C, 24 h)	ISO 62	wt%	0.40	0.40	0.40

- PBI semi-finished material is also available as special grades for semiconductor manufacturing (PBI SF), electrical conductivity (PBI EC), reinforced with carbon fibres (PBI CF) and as PBI-PEEK alloy.

Distributed By -



Bahrenfelder Str. 242
22765 Hamburg
+49 40 4011 30000
info@bieglo.com
www.bieglo.com

The specified values are established from average values of several tests and they correspond to our today's knowledge. They are only to be used as information about our products and as help for the material selection. With these values, we do not ensure specific properties, or the suitability for certain application, therefore we do not assume any legal responsibility for an improper usage. The used test pieces have been machined from extruded semi-finished material. Since the plastics properties depend on the manufacturing process (extrusion, moulding), on the dimensions of the semi-finished material and on the degree of crystallinity, the actual properties of a specific product may slightly deviate from the tested ones. For information about divergent properties do not hesitate to contact us. On request we advise you regarding the most appropriate component design and the definition of material specifications more suitable to your application data. Notwithstanding, the customer bears all the responsibility for the thorough examination of suitability, efficiency, efficacy and safety of the chosen products in pharmaceutical applications, medical devices or other end uses.

Status: April 2020