

Technical Data Sheet

PEEK

Beige grey

PEEK (polyetheretherketone) very high temperature resistance (250 deg c constantly and up to 310 deg c for short period). Excellent chemical and high energy radiation resistance and superb dimensional stability, along with good hydrolysis and flammability resistance. Excellent abrasion resistance and sliding properties.

product information

Name: Peek

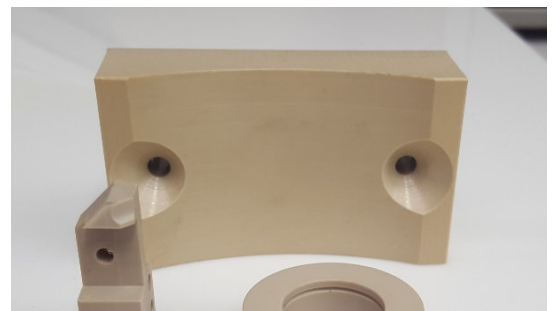
key characteristics

- Excellent chemical and high energy radiation resistance
- Superb dimensional stability
- Excellent abrasion resistance
- Good sliding properties
- Good electrical insulating properties
- Good machinability

applications

- Gears
- Piston rings
- Bearings
- Valves
- Wear plates

Peek is also available in filled grades, such as carbon, glass and solid lubricant, which further improve performance in more specific applications.



Certificate Number: 14352
ISO 9001



Care should be taken in selecting the most suitable quality for each application. Advice is available, but final responsibility remains with the customer.

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PEEK

Physical Properties

	Test	Unit	Result
1. Specific gravity	ISO 1183	g/cm ³	1.32
2. Water absorption	ISO 62	%	0.2
3. Maximum service temp.	Long Term	°C	240
	Brief	°C	310
4. Minimum working temperature		°C	-60
4. Melting point	DIN 5376	°C	343

Mechanical Properties

	Test	Unit	Result
1. Tensile stress at break	ISO 527	MPa	110
2. Modulus of elasticity	ISO 527	Mpa	4000
3. Impact strength	DIN 53453	kJ/m ²	NB
4. Notched impact strength	DIN 53453	kJ/m ²	5
5. Ball indentation hardness	ISO 2039-1	N/mm ²	230
6. Rockwell hardness	ISO 2039-2	-	M105
7. Coefficient of friction	Dry vs steel	-	0.3-0.5

Thermal Properties

	Test Method	Unit	Result
1. Coefficient of linear thermal expansion (23-60°C)	ISO 11359	m/(m-K)	50 x 10 ⁻⁶

Electrical Properties

	Test Method	Unit	Result
1. Surface resistivity	DIN 53482	Ω	10 ¹⁸
2. Dielectric constant	DIN 53483	@ 50 Hz dry	3.2
3. Volume resistivity	DIN 53482	Ω x cm	4.9 x 10 ¹⁶
4. Tracking resistance	DIN 53480	-	150
5. Dielectric strength	DIN 53481	kV/mm	20

Additional Data

	Test Method	Unit	Result
1. Food compliance	FDA + EU	-	+
2. Flammability	UL94	-	V-0

All The above information is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.

Key

Yes

+

Limited

0

No or no data

-



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