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做国际一流高分子材料企业

Be a World-class Polymer Enterprise

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Zhejiang Pfluo Technology Co., Ltd. has dedicated three decades to material research and applied technology development of specialty polymers. The company specializes in high-performance polymers, specialty coatings and implant bio-materials. Based on market needs, Pfluo provides customized solutions in products, processing and applications. Pfluo focuses on synthesis of polyarylether resins, particularly PEEK, and develops plastic alloys and compounds by combining the property advantages of various specialty polymers to meet the diverse demands of different industries.

Mission

Industrial cornerstone, glory of the great power

Vision

Be a world-class polymer enterprise

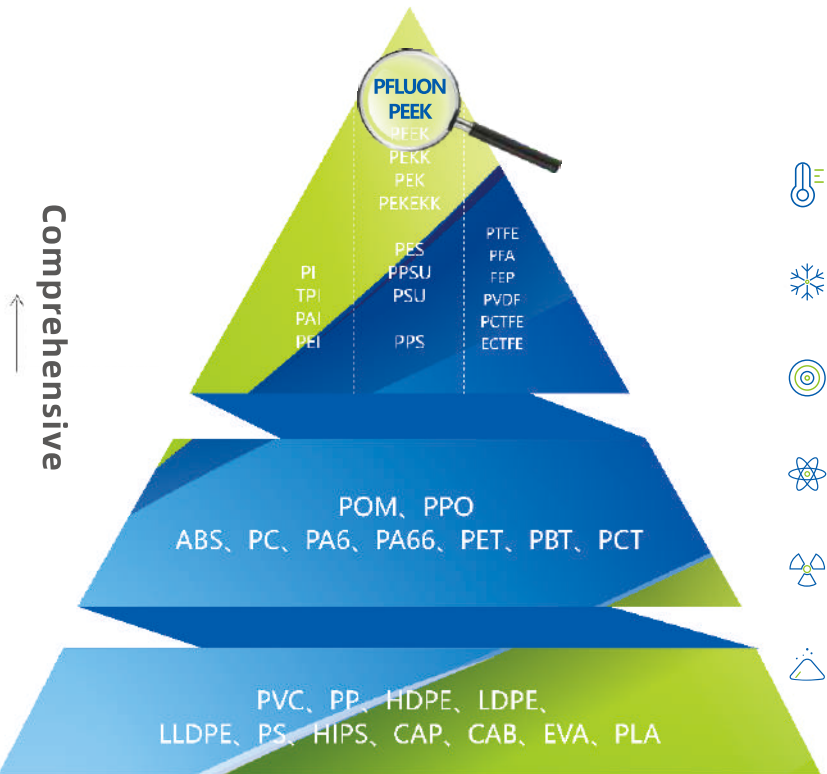
Values

Honest, professional, open, cooperative, win-win



Innovation,Better Your Life.

About PEEK



- High temperature resistance
- Low temperature resistance
- Wear resistance
- Fatigue resistance
- Radiation resistance
- Low density
- High mechanical strength
- Natural insulation
- Natural flame retardant
- Easy machining
- Corrosion resistance
- Hydrolysis resistance



Polyetheretherketone, PEEK for short, is a kind of semi-crystalline, thermoplastic specialty engineering plastics with excellent comprehensive properties, and preferred lightweight material of replacing steel by plastics.

PFLUON®PEEK Products

PFLUON®PEEK product portfolio is built on two basic serial resins: Series 8 and Series 9, mainly including 8000G, 8100G, 8200G, 8800G, 8900G, 9100G and 9200G, from which a diverse range of compounded grades are derived to meet the demands of various application scenarios. Additionally, the company offers customized services addressing specific market needs.

PFLUON®PEEK product format

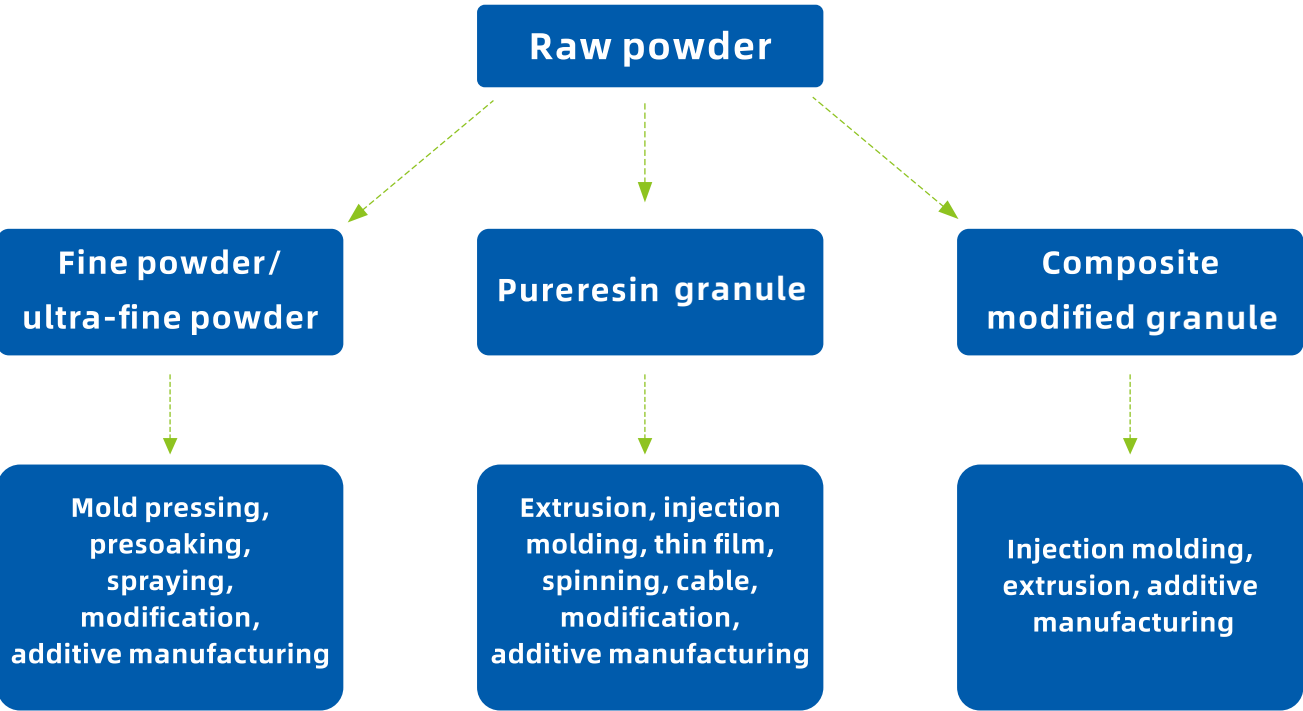


Table for common grades of PFLUON®PEEK

	8000	8100	8200	8800	8900	9100	9200
Powder	8000P	8100P 8100FP	8200P	8800P 8800UFP-1	8900P 8900UFP	5100P	5200P
Pure resin granule	8000G	8100G	8200G	8800G	8900G	9100G	9200G
Carbon fiber reinforced	Carbon fiber content can be filled up 50%.						
Glass fiber reinforced	Glass fiber content can be filled up to 60%.						
PTFE filling		8100FE20	8200FE10 8200FE20	8800FE10 8800FE20	8900FE10 8900FE20	9100FE10 9100FE20	9200FE10 9200FE20
Fc30 self-lubricating		8100FC30	8200FC30	8800FC30	8900FC30	9200FC30	9200FC30
Wear resistance	HW002、HW003、HW004、8200WF30、8800WF45、HE610、HE611、HE613						
Anti-static	ESD802、ESD806、ESD826 、ESD837						
Low melting point	6200G、6300G、6200UFP、6300UFP						
High modulus	FB9808、FB9809 、8900HMF40						
Low thermal conductivity	HDR410						
Ceramic filling for use of semi-conductor	HDR422、HDR425、HDR426						
High-voltage resistance	FB917、FB968						
E-cigarette application	8200G(B)、8800G(B)、8800GF30B、HDR400、HDR410、						
Fatigue resistant application	8000G、8100G						
Spinning and cable applications	8200G(B)、8800G(B)、8900G(B)、CBL2802、CBL2808、CBL2901						
Continuous fiber composite applications	8800UFP-1、8900UFP、6200UFP、6300UFP						

(*The above table shows some common grades, and customized application solutions are available as required)

Physical Property List of Products

Properties	Test Standard	Test Conditions	Unit	Pure Resin Series						Carbon Fiber Reinforced Series							Ceramic filled Series	Antistatic Series		
				8000G	8100G	8200G	8800G	6200G	9100G	8200CF20	8200CF25	8200CF30	9100CF20	8800CF30	9200CF30	FB988		HDR425	ESD802	ESD806
Mechanical properties																				
Tensile strength	ISO 527	Breakage, 23°C	MPa	/	/	/	/	92	98	220	245	255	220	260	255	375	105	105	130	150
		Yield, 23°C	MPa	95	96	98	100	/	/	/	/	/	/	/	/	/	/	/	/	/
Elongation at break	ISO 527	Breakage, 23°C	%	40	40	35	25	24	30	3	2.5	2.2	2.5	2.2	2.2	1.8	30	30	2.0	2.5
Bending strength	ISO 178	Breakage, 23°C	MPa	/	/	/	/	140	160	/	/	380	355	385	380	560	560	/	225	260
		Yield, 23°C	MPa	150	150	155	160	/	/	355	370	/	/	/	/	/	165	165	/	/
Bending modulus	ISO 178	23°C	GPa	3.7	3.7	3.7	3.9	3.3	3.7	19	17	23	18	23	23	38	38	4.5	12	13
Impact strength of simply supported beam	ISO 179/1eA	With notch	kJ.m ⁻²	9	8	7	5	8.3	10	9.5	9.0	9.0	10.0	8.0	9.5	11	11	11	3.5	5.0
		Without notch	kJ.m ⁻²	/	/	/	/	/	/	50	50	55	50	55	55	90	90	/	30	53
Thermal properties																				
Fusing point	ISO 11357	—	°C	343	343	343	343	306	343	343	343	343	343	343	343	343	343	343	343	343
Glass transition temperature	ISO 11357	Start	°C	143	143	143	143	156	150	143	143	143	143	143	143	143	143	143	143	143
Thermal expansion coefficient	ISO 11359	Lower than Tg along the flow direction	ppm.K ⁻¹	45	45	45	45	/	47	8	6	6	8	5	5	5	45	45	25	10
		Higher than Tg along the flow direction	ppm.K ⁻¹	120	120	120	120	/	55	8	6	6	8	6	6	6	120	120	70	15
Thermal deformation temperature	ISO 75A-f	1.8 Mpa	°C	152	152	152	150	/	/	325	330	336	325	336	336	343	343	155	170	315
Electrical properties																				
Volume resistivity	IEC 60093	23°C, 1V	Ω·cm	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁶	/	10 ¹⁶	10 ⁷	10 ⁷	10 ⁵	10 ⁷	10 ⁵	10 ⁵	10 ⁴	10 ¹⁶	10 ⁵	10 ⁶	/
		275°C	Ω·cm	10	10	10	10	/	/	/	/	/	/	/	/	/	10 ¹⁶	/	/	/
Surface resistivity	IEC 61340	23°C, 100V	Ω	/	/	/	/	/	/	/	/	/	/	/	/	/	/	10 ⁶	10 ⁷	10 ⁷
Others																				
Density	ISO 1183	Crystalline	g/cm ³	1.3	1.3	1.3	1.3	1.28	1.3	1.37	1.39	1.41	1.37	1.41	1.41	1.45	1.51	1.3	1.3	1.3
		Non-crystalline	g/cm ³	1.26	1.26	1.26	1.26	/	/	/	/	/	/	/	/	/	/	/	/	/
Shore D hardness	ISO 868	23°C	—	85	85	85	85	82	85	88	89	90	88.0	90	89.0	91	87	86	86	86
Molding shrinkage	ISO 294-4	Parallel to the flow direction	%	1.0	1.0	1.0	1.0	/	/	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.9	1.0	1.0	1.0
		Perpendicular to the flow direction	%	1.3	1.3	1.3	1.3	/	/	0.7	0.6	0.5	0.7	0.5	0.5	0.5	1.1	1.3	1.3	1.3
Properties	Test Standard	Test Conditions	Unit	Glass Fiber Reinforced Series							Wear Resistance Series									
				8200GF10	8200GF20	8200GF30	8800GF20	8800GF30	8800GF60	FB905	8200FC30	8800FC30	8900FC30	9200FC30	8200WF30	8800WF45	HE610	HE611	HW002	
Mechanical properties																				
Tensile strength	ISO 527	Breakage, 23°C	MPa	125	155	180	160	185	235	215	155	155	155	160	210	235	85	75	210	
		Yield, 23°C	MPa	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
Elongation at break	ISO 527	Breakage, 23°C	%	6.0	4.0	2.3	3.7	2.3	1.5	2.3	2.8	2.5	2.3	2.8	2.3	2.0	30	30	2.0	
Bending strength	ISO 178	Breakage, 23°C	MPa	210	360	285	360	290	375	330	270	270	275	280	330	370	/	/	300	
		Yield, 23°C	MPa	/	/	/	/	/	/	/	/	/	/	/	/	/	135	130	/	
Bending modulus	ISO 178	23°C	GPa	6.0	9	11	9	11	23	13	15.5	15.5	16	17	15	27	3.5	3.5	15	
Impact strength of simply supported beam	ISO 179/1eA	With notch	kJ.m ⁻²	7.5	9	9	9	10.5	13	17	6.5	5.0	4.0	7.3	8.0	8.0	7.0	7.0	5.0	
		Without notch	kJ.m ⁻²	65	70	75	60	70	85	90	35	35	30	35	40	45	/	/	43	
Thermal properties																				
Fusing point	ISO 11357	—	°C	343	343	343	343	343	343	343	343	343	343	343	343	343	343	343	343	343
Glass transition temperature	ISO 11357	Start	°C	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143
Thermal expansion coefficient	ISO 11359	Lower than Tg along the flow direction	ppm.K ⁻¹	30	25	20	25	20	13	20	15	15	15	15	10	5	45	45	5	
		Higher than Tg along the flow direction	ppm.K ⁻¹	50	30	25	30	25	20	25	20	20	20	20	15	6	120	120	6	
Thermal deformation temperature	ISO 75A-f	1.8 Mpa	°C	270	315	328	315	328	343	330	315	315	315	315	320	330	145	145	325	
Electrical properties																				
Volume resistivity	IEC 60093	23°C, 1V	Ω·cm	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁶	/	/	/	10 ⁶	/	/	10 ¹⁶	10 ¹⁶	10 ⁴	
		275°C	Ω·cm	/	/	/	/	/	/	/	/	/	/	/	/	/	10 ¹⁶	10 ¹⁶	/	
Surface resistivity	IEC 61340	23°C, 100V	Ω	/	/	/	/	/	/	/	10 ⁶	10 ⁶	10 ⁶	/	10 ⁷	10 ⁴	/	/	/	
Others																				
Density	ISO 1183	Crystalline	g/cm ³	1.36	1.44	1.52	1.44	1.52	1.83	1.52	1.45	1.45	1.45	1.45	1.43	1.5	1.35	1.4	1.43	
		Non-crystalline	g/cm ³	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
Shore D hardness	ISO 868	23°C	—	89	89	89	/	89	91	89	84	84	84	84	88	88	83	82	88.5	
Molding shrinkage	ISO 294-4	Parallel to the flow direction	%	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	1.1	1.2	0.6	
		Perpendicular to the flow direction	%	1.0	0.9	0.9	0.9	0.9	0.6	0.9	0.7	0.7	0.7	0.7	0.7	0.6	1.5	1.7	0.1	



Application
Feasibility Analysis



Material
Selection



Formula
Customization



Product
Design



Mold Design
Proposal



Processing
Guidance



Product Properties
Evaluation



On-site Technical
Support



Product Failure
Analysis



Customer Samples
Testing & Analysis



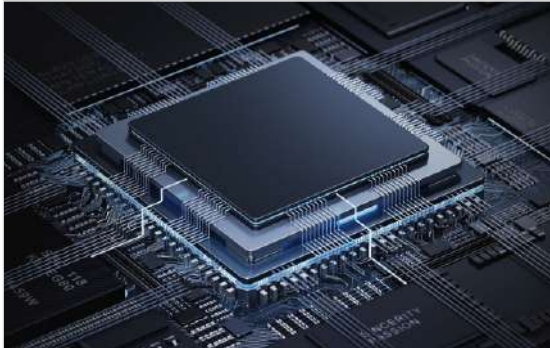
Aerospace



Medical devices and implants



Automotive parts



Electronic semi-conductors



Humanoid Robotics

**Innovation,
Better Your Life
创新创造美好生活**