

High Performance PEEK Resin

Our PEEK products are divided into high, medium and low melt viscosity grades according to their melt viscosity. Typical grades include 330 series, 550 series and 770 series. The products include PEEK pure resin powder, granules and reinforced composite resin with a variety of grades, which may apply injection molding, extrusion molding and other processing methods.



Product Grade:

- Powder and Pellet Shape for pure PEEK resin.
- Fiber reinforced composite pellet.
- Special grade, such as fine powder shape.

	Test Method	Conditions	Units	770G	550G	330G	770CA30	770CA20	770GL30
Mechanical Data									
Tensile Strength	ISO527	Yield, 23°C	Mpa	98	98	110	260	210	180
Tensile Elongation	ISO527	Break, 23°C	%	45	28	24	6.4	6.5	7.6
Tensile Modulus	ISO527	23°C	Gpa	3.7	3.7	3.9	25	18	11.8
Flexural Strength	ISO178	23°C	MPa	165	165	175	380	310	270
Flexural Modulus	ISO178	23°C	Gpa	4.1	4.2	4.2	23	16	11.3
Compressive Strength	ISO604	23°C	MPa	120	120	120	300		250
Charpy Impact Strength	ISO179/leA	Notched, 23°C	KJm ⁻²	7	6	4	7	7	7.5
Izod Impact Strength	ISO180/A	Notched, 23°C	KJm ⁻²	7.5	6.5	5.5	14.9	12.4	14.1
	ISO180/U	Unnotched, 23°C	KJm ⁻²	n/b	n/b	n/b	45	45	58

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	Test Method	Conditions	Units	770G	550G	330G	770CA30	770CA20	770GL30
Thermal Data									
Melting Point	ISO11357		°C	343	343	343	343	343	343
Glass Transition(Tg)	ISO11357	Onset	°C	143	143	143	143	143	143
Coefficient of Thermal Expansion		Along flow below Tg	ppm°C ⁻¹	45	45	50	5	8	18
	ISO11359	Average below Tg		55	55	55	40	45	45
		Along flow above Tg		120	120	120	6	8	18
Heat Deflection Temperature	ISO75-f	Average above Tg		140	140	140	100	110	110
		1.8MPa	°C	152	152	156	336	325	328
Thermal Conductivity	ISO/CD22007-4	23°	Wm ⁻¹ °C ⁻¹	0.28	0.28	0.29	0.95	0.95	0.3
Flow									
Melt Viscosity	ISO11443	400°C	Pas	350	300	130	675	550	560
Miscellaneous									
Density	ISO1183	Crystalline	gcm ⁻³	1.2	1.2	1.2	1.4	1.37	1.51
		Amorphous		1.26	1.26	1.26			
Shore Hardness	ISO868	23°C		87	84	87	90	87	89
Water Absorption	ISO62-1	24h, 23°C	%	0.03	0.03	0.03	0.02	0.02	0.02
		Equilibrium, 23°C		0.4	0.4	0.4	0.3	0.4	0.3
Fire Smoke Toxicity									
Flammability Rating	UL94		n/a	n/a V-0	n/a V-0	n/a V-0	n/a V-0	n/a V-0	n/a V-0
				@1.6mm	@1.6mm	@1.6mm	@1.6mm	@1.6mm	@1.6mm
Electric Data									
Dielectric Strength	IEC60243-1	25mm thickness	kVmm ⁻¹	15	17	16			20
Volume Resistivity	IEC60093	23°C	W.cm	10 ¹⁶	10 ¹⁶	10 ¹⁶			10 ¹⁶
Loss Tangent	IEC60250	23°C, 1MHz	n/a	0.003	0.003	0.003			0.003
Mould Shrinkage									
Mould Shrinkage	ISO294-4	Along flow	%	1	1	1	0.1	0.2	0.3
		Across flow	%	1.3	1.3	1.3	0.5	0.7	0.9

