

Fitex PPS

Properties	Standards	Test condition	Units	RS-1340 (GF40%)	RS-1340S (GF40%) Impact-modified
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Mechanical properties

Izod impact strength	ASTM D256	1/8" 23°C (V-Notched)	J/m kgf·cm/cm	61 6.2	89 9
Tensile strength at break	ASTM D638	—	MPa kgf/cm ²	125 1260	120 1220
Tensile elongation at break	ASTM D638	—	%	3	4
Flexural strength	ASTM D790	—	MPa kgf/cm ²	175 1800	170 1760
Flexural modulus	ASTM D790	—	MPa kgf/cm ²	9215 94000	9000 92000
Rockwell hardness	R scale	—	—	122	—

Thermal properties

Flammability	UL 94	—	—	V-0 (0.75mm)	V-0 equiv. (1.5mm)
Heat deflection temperature	ASTM D648	18.6kgf/cm ²	°C	> 260	260
Melt flow rate	ASTM D1238	300°C 1.2kgf	g/10min.	—	—

Physical properties

Specific gravity	ASTM D792	—	—	1.66	1.62
Water absorption	ASTM D570	24hrs@23°C (water immersion)	%	0.02	0.02
Mould shrinkage	ASTM D995	MD	%	0.3~1.0	0.3~1.0
		TD		—	—

Electrical properties

Dialect breakdown strength	ASTM D149	—	kV/mm	16	16
Dialect constant	ASTM D150	10 ⁶ Hz	—	4	4
Dialect dissipation factor	ASTM D150	10 ⁶ Hz	—	—	—
Arc resistance	ASTM D495	—	sec.	—	—
Surface resistivity	ASTM D257	—	Ω·cm	10 ¹⁶	10 ¹⁶

Ketex PEEK

Properties	Standards	Test condition	Units	PKR-10	PKR-20	PKR-30	PKR-30G30 (GF30%)
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Mechanical properties

Charpy impact strength	ISO 179	4.0t 23°C (V-Notched)	KJ/m ²	4	5	6	11	
		Unnotched		NB	NB	NB	NB	
Tensile elongation at break	ISO 527	4.0t 23°C	MPa	95	95	95	172	
Flexural strength			%	20	17	16	5	
Flexural strength	ISO 178	4.0t 23°C	MPa	150	150	150	256	
				4.0t 125°C	88	88	85	—
				4.0t 175°C	19	19	17	—
				4.0t 275°C	11	11	10	—
Flexural modulus	ISO 178	4.0t 23°C	MPa	3500	4200	3600	12390	

Thermal properties

Flammability	UL-94	—	—	V-1 equiv. (1.5mm)	V-0 equiv. (1.5mm)	V-0 equiv. (1.5mm)	V-0 equiv. (0.5mm)
Heat deflection temperature	ISO 75	1.82 MPa	°C	155	152	152	328
Melt flow rate	ISO 1133-1	400°C	g/10min	33	5	3	—

Physical properties

Specific gravity	ISO 1183	—	—	1.30	1.30	1.30	1.53
Mould shrinkage	ISO 294	MD	%	1.0	1.0	1.0	0.3
		TD		1.3	1.3	1.3	0.9

Electrical properties

Dialect breakdown	IEC 60243-1	t2.5mm	kV/mm	16	16	16	25
Dialect constant	IEC 60250	23°C 1kHz	n/a	2.9	2.9	2.8	3.2
Dialect dissipation factor	IEC 60250	23°C 1MHz	n/a	0.005	0.005	0.003	0.005
Volume resistivity	IEC 60093	23°C	Ω·cm	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁶

Eitex PEI

Properties	Standards	Test condition	Units	RPEI-10	RPEI-10G30 (GF30%)
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Mechanical properties

Izod impact strength	ASTM D256	1/8" 23°C (V-Notched)	J/m	30	125
	ASTM D4812	1/8" 23°C (Unnotched)	J/m	NB	837
Tensile elongation at break	ISO 527	4.0t 23°C	MPa	110	190
Flexural strength		4.0t 23°C	%	13	5
Flexural strength	ISO 527	4.0t 23°C	MPa	165	275
Flexural modulus		4.0t 23°C	MPa	3500	11900

Thermal properties

Flammability	UL-94	—	—	V-0 equiv. (1.5mm)	V-0 equiv. (0.38mm)
Heat deflection temperature	ISO 75	1.82MPa	°C	197	220
Melt flow rate	ISO 1133-1	337°C 5.0kgf	g/10min	12	—

Physical properties

Specific gravity	ASTM D792	—	—	1.28	1.51
Water absorption	ASTM D570	24hrs@23°C (water immersion)	%	—	0.16
Mould shrinkage	ISO 294 (ASTM D995)	MD	%	0.5~0.7	0.2~0.4
		TD		—	0.2~0.4

Electrical properties

Dialect breakdown	ASTM D149	—	kV/mm	33	25
Dialect constant	ASTM D150	1kHz	—	3.15	3.7
Dialect dissipation factor	ASTM D150	1kHz	—	0.001	0.0015
Volume resistivity	ASTM D257	—	Ω·cm	10 ¹⁷	10 ¹⁶

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