



# Technical Data Sheet Peek

## Yazd polymer

<b>I. Physical Properties</b>	<b>Peek</b>	<b>Peek - mod</b>	<b>Peek-30 GF</b>	<b>Test method</b>	<b>Unit</b>	
1. Specific gravity	1.31	1.48	1.51	ASTM D792	g/cm <sup>3</sup>	
2. Water saturation	0.4	0.3	0.5	ASTM D570	%	
3. Water equilibrium (50% RH)	0.07	0.04	0.11	ASTM D570	%	
4. Maximum permissible service temp.	500	500	500	UL 746B	°F	
5. Lower permissible service temp.	-40	-	-	UL 746B	°F	
<b>II. Mechanical Properties</b>						
1. Tensile strength at yield	14.500	17.300	22.800	ASTM D638	psi	
2. Elongation at yield.	-	-	-	ASTM D638	%	
3. Tensile strength at break	26.800	-	26.500	ASTM D638	psi	
4. Elongation at break	45	2.5	2.2	ASTM D638	%	
5. Impact strength	n.b.	-	9.5	ASTM D256	ft-lb/in	
6. Notch impact strength	2.1	3.2	2.4	ASTM D256	ft-lb/in	
7. Ball indentation / Rockwell hardness	-	-	-	ASTMD785	psi	
8. Shore-D	-	85	90	ASTMD2240	-	
9. Flexural strength	23.900	30.000	33.800	ASTM D638	psi	
10. Modulus of elasticity	537.000	1.394.000	1.406.000	ASTM D638	psi	
<b>II. Thermal Properties</b>						
1. Vicat-softening point	VST/B/50	-	-	-	ASTMD1525	°F
	VST/A/50	-	-	-	ASTMD1525	°F
2. Heat deflection temperature	HDT/B	-	-	-	ASTM D648	°F
	HDT/A	306	622	622	ASTM D648	°F
3. Coefficient of linear thermal expansion		4.7	3.1	1.2	ASTM D696	in/in/°F×10 <sup>-5</sup>
4. Thermal conductivity at 20°C		2.0	-	3.0	ASTM C177	BTU/hr-ftx°F
5. Glass transition temperature		289	295	296	ASTMD3418	°F
6. Melting temperature		649	646	646	ASTMD3418	°F
<b>IV. Electrical Properties</b>						
1. Volume resistivity		10 <sup>13</sup>	10 <sup>10</sup>	10 <sup>13</sup>	ASTMD257	Ω×cm
2. Surface resistivity		10 <sup>13</sup>	10 <sup>5</sup>	10 <sup>13</sup>	-	Ω/SQ
3. Dielectric constant at 1MHz		3.2	-	-	ASTM D150	-
4. Dielectric loss factor at 1 MHz		0.0040	-	-	-	-
5. Dielectric strength		580	-	175	ASTM D149	V/mil
6. Tracking resistance		150	-	-	IEC 60112	Grade
<b>V. Additional Data</b>						
1. Bond ability	Yes	limited	Yes	-	-	
2. Physiological indifference	Yes/ No	Yes/ No	No/no	FDA/ NSF	-	
3. Flammability	V-0	V-0	V-0	UL 94	-	
4. UV stabilization	limited	yes	limited	-	-	