

PEEK

fluteck[™] K series



— SIZE LIST

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PEEK: polyetheretherketone

PEEK [fluteck™ K 300] or Polyetheretherketone is a semi-crystalline organic thermoplastic polymer belonging to the polyaryletherketone (PEAK) family with a highly stable chemical structure that is used in engineering applications. PEEK guarantees superior performance over a wide range of temperatures and extreme conditions and is widely regarded as one of the highest performing thermoplastic materials. Thanks to its unique combination of mechanical and chemical properties, it is able to substitute metal in a broad range of industrial applications and as a result, it covers a wide variety of operating conditions.

PEEK has excellent mechanical properties including strength, rigidity, impact resistance, low wear rate and low coefficient of friction, but most importantly these properties are retained over a wide range of service temperatures.

It is also highly resistant to thermal degradation as well as attack by both organic and aqueous environments. The excellent mechanical performance allows parts to be designed with reduced weight, greater durability and strength, which makes PEEK an alternative solution to metals in extreme conditions.

The thermal performance of PEEK as well as the wear and chemical resistance ensure longer life and integrity of components in harsh environments. PEEK has good resistance to beta and X rays, as well as gamma rays (more than 1000 mras without significant loss of mechanical properties).

These properties make it a material suitable for sterilization and, due to its features of biocompatibility (USP Class VI), a strong candidate for medical applications. Our PEEK has successfully obtained API 6A and NORSOK M710 certifications.

Virgin PEEK molded tubes

Metric sizes

O.D. (mm)	O.D. Tolerance ⁽¹⁾	I.D. (mm)					I.D. Tolerance ⁽¹⁾	Length (mm)	Length Tolerance ⁽¹⁾
124.0	+2.0% -0.0%	104.0	100.0	-	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
132.0	+2.0% -0.0%	112.0	107.0	102.0	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
138.0	+2.0% -0.0%	118.0	113.0	108.0	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
143.0	+2.0% -0.0%	123.0	118.0	113.0	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
148.0	+2.0% -0.0%	128.0	123.0	118.0	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
152.0	+2.0% -0.0%	132.0	127.0	122.0	117.0	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
161.0	+2.0% -0.0%	141.0	136.0	131.0	126.0	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
165.0	+2.0% -0.0%	145.0	140.0	135.0	130.0	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
170.0	+2.0% -0.0%	150.0	145.0	140.0	135.0	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
178.0	+2.0% -0.0%	158.0	153.0	148.0	143.0	138.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
183.0	+2.0% -0.0%	163.0	158.0	153.0	148.0	143.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
188.0	+2.0% -0.0%	168.0	163.0	158.0	153.0	148.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
193.0	+2.0% -0.0%	173.0	168.0	163.0	158.0	153.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
198.0	+2.0% -0.0%	178.0	173.0	168.0	163.0	158.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
201.0	+2.0% -0.0%	181.0	176.0	171.0	166.0	161.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
204.0	+2.0% -0.0%	184.0	179.0	174.0	169.0	164.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
206.0	+2.0% -0.0%	186.0	181.0	176.0	170.0	166.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
210.0	+2.0% -0.0%	190.0	185.0	180.0	175.0	170.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
214.0	+2.0% -0.0%	194.0	189.0	184.0	179.0	174.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
221.0	+2.0% -0.0%	201.0	196.0	191.0	186.0	181.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
226.0	+2.0% -0.0%	206.0	201.0	196.0	191.0	186.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
232.0	+2.0% -0.0%	212.0	207.0	202.0	197.0	192.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
235.0	+2.0% -0.0%	215.0	210.0	205.0	200.0	195.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
243.0	+2.0% -0.0%	223.0	218.0	213.0	208.0	203.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
249.0	+2.0% -0.0%	229.0	224.0	219.0	214.0	209.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
249.0	+2.0% -0.0%	233.0	228.0	223.0	218.0	213.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
264.0	+2.0% -0.0%	244.0	239.0	234.0	229.0	224.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
269.0	+2.0% -0.0%	249.0	244.0	239.0	234.0	229.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
274.0	+2.0% -0.0%	254.0	249.0	244.0	239.0	234.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
278.0	+2.0% -0.0%	258.0	253.0	248.0	243.0	238.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
283.0	+2.0% -0.0%	263.0	258.0	253.0	248.0	243.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
290.0	+2.0% -0.0%	270.0	265.0	260.0	255.0	250.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
300.0	+2.0% -0.0%	280.0	275.0	270.0	265.0	260.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
310.0	+2.0% -0.0%	290.0	285.0	280.0	275.0	270.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
322.0	+2.0% -0.0%	302.0	297.0	292.0	287.0	282.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%

(1) According to corporate standard specification
Additional sizes available on request

Virgin PEEK molded tubes

Metric sizes

O.D. (mm)	O.D. Tolerance ⁽¹⁾	I.D. (mm)					I.D. Tolerance ⁽¹⁾	Length (mm)	Length Tolerance ⁽¹⁾
333.0	+2.0% -0.0%	313.0	308.0	303.0	298.0	293.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
343.0	+2.0% -0.0%	323.0	318.0	313.0	308.0	303.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
352.0	+2.0% -0.0%	332.0	327.0	322.0	317.0	312.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
362.0	+2.0% -0.0%	342.0	337.0	332.0	327.0	322.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
372.0	+2.0% -0.0%	352.0	347.0	342.0	337.0	332.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
383.0	+2.0% -0.0%	363.0	358.0	353.0	348.0	343.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
394.0	+2.0% -0.0%	374.0	369.0	364.0	359.0	354.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
403.0	+2.0% -0.0%	383.0	378.0	373.0	368.0	363.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
413.0	+2.0% -0.0%	393.0	388.0	383.0	378.0	373.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
423.0	+2.0% -0.0%	403.0	398.0	393.0	388.0	393.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
432.0	+2.0% -0.0%	412.0	407.0	402.0	397.0	392.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
437.0	+2.0% -0.0%	417.0	412.0	407.0	402.0	397.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
443.0	+2.0% -0.0%	423.0	418.0	413.0	408.0	403.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
454.0	+2.0% -0.0%	434.0	429.0	424.0	419.0	414.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
464.0	+2.0% -0.0%	444.0	439.0	434.0	429.0	424.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
473.0	+2.0% -0.0%	453.0	448.0	443.0	438.0	433.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
483.0	+2.0% -0.0%	463.0	458.0	453.0	448.0	443.0	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
510.0	+2.0% -0.0%	470.0	-	-	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
525.0	+2.0% -0.0%	495.0	-	-	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
535.0	+2.0% -0.0%	510.0	-	-	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
540.0	+2.0% -0.0%	510.0	495.0	-	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
570.0	+2.0% -0.0%	525.0	-	-	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
590.0	+2.0% -0.0%	560.0	-	-	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
620.0	+2.0% -0.0%	580.0	-	-	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
650.0	+2.0% -0.0%	620.0	610.0	-	-	-	- 5.0% +0.0	150 - 300	- 2.0% +2.0%
660.0	+2.0% -0.0%	620.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%
685.0	+2.0% -0.0%	650.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%
710.0	+2.0% -0.0%	680.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%
750.0	+2.0% -0.0%	720.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%
795.0	+2.0% -0.0%	760.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%
850.0	+2.0% -0.0%	825.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%
900.0	+2.0% -0.0%	860.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%
940.0	+2.0% -0.0%	910.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%
980.0	+2.0% -0.0%	930.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%
1111.0	+2.0% -0.0%	1070.0	-	-	-	-	- 5.0% +0.0	100	- 2.0% +2.0%

(1) According to corporate standard specification
Additional sizes available on request

Virgin PEEK molded tubes

Imperial sizes

O.D. (inch)	O.D. Tolerance ⁽¹⁾	I.D. (inch)				I.D. Tolerance ⁽¹⁾	Length (inch)	Length Tolerance ⁽¹⁾
4.75"	+2.0% -0.0%	4.00"	-	-	-	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
5.25"	+2.0% -0.0%	4.50"	4.25"	-	-	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
5.50"	+2.0% -0.0%	4.75"	4.50"	4.25"	4.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
5.75"	+2.0% -0.0%	5.00"	4.75"	4.50"	4.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
6.00"	+2.0% -0.0%	5.25"	5.00"	4.75"	4.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
6.25"	+2.0% -0.0%	5.50"	5.25"	5.00"	4.75"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
6.50"	+2.0% -0.0%	5.75"	5.50"	5.25"	5.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
6.75"	+2.0% -0.0%	6.00"	5.75"	5.50"	5.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
7.00"	+2.0% -0.0%	6.25"	6.00"	5.75"	5.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
7.25"	+2.0% -0.0%	6.50"	6.25"	6.00"	5.75"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
7.50"	+2.0% -0.0%	6.75"	6.50"	6.25"	6.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
7.75"	+2.0% -0.0%	7.00"	6.75"	6.50"	6.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
8.00"	+2.0% -0.0%	7.25"	7.00"	6.75"	6.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
8.25"	+2.0% -0.0%	7.50"	7.25"	7.00"	6.75"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
8.50"	+2.0% -0.0%	7.75"	7.50"	7.25"	7.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
8.75"	+2.0% -0.0%	8.00"	7.75"	7.50"	7.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
9.00"	+2.0% -0.0%	8.25"	8.00"	7.75"	7.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
9.25"	+2.0% -0.0%	8.50"	8.25"	8.00"	7.75"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
9.50"	+2.0% -0.0%	8.75"	8.50"	8.25"	8.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
9.75"	+2.0% -0.0%	9.00"	8.75"	8.50"	8.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
10.00"	+2.0% -0.0%	9.25"	9.00"	8.75"	8.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
10.50"	+2.0% -0.0%	9.75"	9.50"	9.25"	9.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%

(1) According to corporate standard specification
Additional sizes available on request

Virgin PEEK molded tubes

Imperial sizes

O.D. (inch)	O.D. Tolerance ⁽¹⁾	I.D. (inch)			I.D. Tolerance ⁽¹⁾	Length (inch)	Length Tolerance ⁽¹⁾	
10.75"	+2.0% -0.0%	10.00"	9.75"	9.50"	9.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
11.00"	+2.0% -0.0%	10.25"	10.00"	9.75"	9.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
11.25"	+2.0% -0.0%	10.50"	10.25"	10.00"	9.75"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
11.50"	+2.0% -0.0%	10.75"	10.50"	10.25"	10.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
12.00"	+2.0% -0.0%	11.00"	10.75"	10.50"	10.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
12.25"	+2.0% -0.0%	11.25"	11.00"	10.75"	10.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
12.75"	+2.0% -0.0%	11.50"	11.25"	11.00"	10.75"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
13.00"	+2.0% -0.0%	12.00"	11.75"	11.25"	11.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
13.50"	+2.0% -0.0%	12.25"	12.00"	11.75"	11.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
14.25"	+2.0% -0.0%	12.75"	12.50"	12.25"	12.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
14.75"	+2.0% -0.0%	13.50"	13.25"	13.00"	12.75"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
15.50"	+2.0% -0.0%	14.00"	13.75"	13.50"	13.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
16.00"	+2.0% -0.0%	14.75"	14.50"	14.25"	14.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
16.25"	+2.0% -0.0%	15.25"	15.00"	14.75"	14.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
16.75"	+2.0% -0.0%	15.50"	15.25"	15.00"	14.75"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
17.00"	+2.0% -0.0%	16.00"	15.75"	15.50"	15.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
17.25"	+2.0% -0.0%	16.25"	16.00"	15.75"	15.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
17.50"	+2.0% -0.0%	16.75"	16.50"	16.25"	16.00"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
18.00"	+2.0% -0.0%	17.25"	17.00"	16.75"	16.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
18.25"	+2.0% -0.0%	17.50"	17.25"	17.00"	16.75"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
18.75"	+2.0% -0.0%	18.00"	17.75"	17.50"	17.25"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%
19.00"	+2.0% -0.0%	18.25"	18.00"	17.75"	17.50"	- 5.0% +0.0%	5.85" - 11.75"	- 2.0% +2.0%

(1) According to corporate standard specification
Additional sizes available on request

Filled PEEK molded tubes

Metric sizes

O.D. (mm)	I.D. (mm)	O.D. (mm)	I.D. (mm)	O.D. (mm)	I.D. (mm)	O.D. (mm)	I.D. (mm)	O.D. (mm)	I.D. (mm)	O.D. (mm)	I.D. (mm)
70	35	165	138	228	160	275	240	350	300	535	510
80	35	170	125		190	280	215		360	310	540
	50		135	175	233		320	510			
85	35	180	135	230	165	285	250	375	310	570	525
	50		145		200		250		320	590	560
105	70	185	150	235	210	290	260	385	330	620	580
118	70		145		188		250		310	650	610
123	70	195	155	240	205	300	260	390	335	660	620
	85		135		200		240		345	660	620
132	105	200	150	245	210	320	250	435	340	685	650
133	85		160		220		270		390	355	710
	145	90	205	135	250	210	330	280	460	385	750
90		150		215		260		400		795	760
148	110	210	180	255	190	340	270	485	410	850	825
153	110		160		210		280		425	900	860
160	125	220	155	265	215	350	280	510	450	940	910
	130		155		220		300		470	980	930
165	130	220	196	265	233	360	300	525	495	1110	1070
165	130		196		233		300		525	495	1110

Tubes length (up to O.D. 650 mm): 100 mm, 150 mm - special length on request

Tubes length (over O.D. 650 mm): 100 mm - special length on request

Tolerances according to corporate standard specifications: O.D: +2.0% - 0.0%. I.D: - 2.0% +0.0%. Length: +2.0% - 2.0%

Virgin PEEK extruded rods and tubes

Metric sizes

Rods	O.D. (mm)																							
	6	8	10	12	15	16	18	20	22	25	28	30	35	40	45	50	60	65	70	80	90	100	120	

Tubes	O.D. (mm)		I.D. (mm)	
	60		40	
	70		50	
	80		60	
	90		70	
	100		70	
	100		80	
	110		90	
	115		90	

Filled PEEK molded tubes

Imperial sizes

O.D. (inch)	I.D. (inch)	O.D. (inch)	I.D. (inch)	O.D. (inch)	I.D. (inch)	O.D. (inch)	I.D. (inch)	O.D. (inch)	I.D. (inch)	O.D. (inch)	I.D. (inch)
2.750"	1.500"	7.125"	5.375"	9.250"	7.875"	11.250"	9.875"	14.125"	12.500"	22.500"	20.750"
	1.375"	7.250"	6.000"	9.500"	8.125"	11.375"	10.125"		12.125"	23.250"	22.000"
3.125"	1.875"		7.750"	5.625"	9.625"		8.625"	11.875"	9.750"	14.750"	13.500"
	1.375"	6.375"		9.625"		11.125"	13.125"		24.375"		24.000"
3.375"	2.000"	7.875"	6.000"	9.875"	7.875"	12.625"	10.625"	17.125"	15.125"	13.375"	25.625"
4.125"	2.750"		7.125"		8.500"		9.875"		11.000"	16.500"	14.000"
4.875"	3.375"	8.625"	5.875"	10.000"	8.250"	13.000"	11.000"	18.125"	16.500"	15.125"	27.000"
5.750"	4.000"		5.375"		9.750"		10.625"		16.125"	28.000"	26.750"
6.375"	5.125"	8.250"	6.375"	10.375"	8.500"	13.375"	11.750"	19.125"	15.750"	29.500"	28.250"
	5.000"		7.000"		9.125"		11.000"		16.750"	31.250"	29.875"
6.500"	5.125"	9.000"	7.625"	10.750"	8.625"	13.750"	11.750"	20.125"	17.750"	33.500"	32.500"
6.750"	5.375"		7.375"		9.375"		12.500"		18.500"	35.375"	33.750"
	7.125"	5.000"	9.125"	7.500"	11.000"	9.750"	13.750"	12.125"	20.625"	20.125"	37.000"
5.875"		6.625"		8.500"		11.750"		20.125"		38.625"	26.625"
5.750"		9.250"	8.250"	11.250"	10.250"	14.125"	12.875"	21.250"	19.500"	43.750"	42.125"

Tubes length (up to O.D. 25.875"): 4" - 6" - special length on request

Tubes length (over O.D. 25.875"): 4.0" - special length on request

Tolerances according to corporate standard specifications: O.D: +2.0% - .0%. I.D: - 2.0% +.0%. Length: +2.0% - 2.0%

Properties	Method	Units	fluteck™ K 300* (unfilled PEEK)	fluteck™ K 301 (PEEK carbon fiber)	fluteck™ K 303 (PEEK tribological)	fluteck™ K 304 (PEEK PTFE)	fluteck™ K 306 (PEEK pigmented)	fluteck™ K 308 (PEEK graphite)
Physical								
Color	-	-	Light Brown	Black	Black	Light Brown	Black	Black
Specific gravity	ASTM D792	g/cm ³	1.30 - 1.32	1.40	1.45	1.40	1.30 - 1.32	1.28 - 1.35
Water absorption - 24 hours	ASTM D570	%	0.10	0.10	0.30	0.10	0.10	0.30
Mold shrinkage - along the flow	ASTM D955	%	1.00 - 1.30	0.00 - 0.20	0.30	1.20	1.00 - 1.30	0.00 - 0.40
Mechanical								
Elongation at break - at 23°C	ASTM D638	%	≥ 10	≥ 3.0	≥ 1.8	≥ 5.0	10	≥ 3.50
Tensile strength - at 1% strain 23°C	ASTM D638	MPa	≥ 95	≥ 110	≥ 85	≥ 75	≥ 95	≥ 80
Flexural strength - at 23°C	ASTM D790	MPa	≥ 140	≥ 200	≥ 120	≥ 90	≥ 140	≥ 90
Compressive strength - at 23°C	ASTM D695	MPa	≥ 100	≥ 120	≥ 90	≥ 85	≥ 100	≥ 100
Noyched Izod strength - at 23°C	ISO180		7.5	9.0	6.0	6.0	7.5	6.5
	ASTM D256		≥ 85	≥ 60	≥ 50	≥ 50	≥ 85	≥ 60
Tensile modulus	ASTM D256	GPa	3.30 - 4.00	≥ 20	≥ 9.0	≥ 3.0	3.30 - 4.00	≥ 6.0
Shore hardness	ASTM D638	Shore D	≥ 88	≥ 90	≥ 85	≥ 84	≥ 88	≥ 85
Rockwell hardness, M scale	ASTM D2240	Rockwell	≥ 97	≥ 100	≥ 90	≥ 90	≥ 97	≥ 90
Poisson's ratio	ASTM D785	-	0.33	0.40	0.40	0.35	0.33	0.40
Coefficient of static friction (ground steel)	ASTM E132	-	≤ 0.30	≤ 0.25	≤ 0.25	≤ 0.20	≤ 0.30	≤ 0.25
Coefficient of dynamic friction (ground steel) PV=2000; T=23°C	ASTM D3702	-	≤ 0.20	≤ 0.15	≤ 0.15	≤ 0.12	≤ 0.20	≤ 0.15
Thermal								
Thermal conductivity	ASTM C177	W/m.K	0.25	0.95	0.85	0.30	0.25	0.70
Glass transition temperature	ASTM D3418	°C	143	143	144 - 145	143	143	143
Peak melting temperature	ASTM D3418	°C	340 - 343	342 - 344	342 - 344	340 - 343	340 - 343	343 - 345
Maximum service temperature	Internal test	°C	300	310	310	300	300	300
Service temperature, Air	Internal test	°C	-60/+250	-60/+250	-60/+250	-60/+250	0.25	-60/+250
Specific heat capacity, at 23°C	DSC	kJ kg ⁻¹ °C ⁻¹	2.2	1.8	1.8	2.0	0.25	1.8
Thermal conductivity, at 23°C	ASTM E1530	W/m.K	0.25	0.95	0.87	0.30	0.25	0.85
Deflection temperature, 1.9Mpa unannealed	ASTM D648	°C	157	315	290	150	157	250
Relative thermal index - electrical	UL746B	°C	260			260	260	
Relative thermal index - mechanical w/o impact	UL746B	°C	240	240	240	230	240	240
Relative thermal index - mechanical w impact	UL746B	°C	180	200	200	180	180	190
CLTE-flow direction, -50 to 50°C	ASTM E831	10 ⁻⁶ °C	45	6	25	55	45	30
Oxygen Index, LOI	ASTM D2863	%	< 35	< 35	< 35	< 35	< 35	< 35
Flammability	UL94	°C	V-0	V-0	V-0	V-0	V-0	V-0
Electrical								
Dielectric strength, 2mm thick	ASTM D149		≥ 22	≥ 20	≥ 21	≥ 22	≥ 22	≥ 20
Volume resistivity	ASTM D257	Ohm.cm	10 ¹⁷	10 ⁶	10 ¹¹	10 ¹⁷	10 ¹⁷	10 ¹¹
Surface resistivity	ASTM D257	Ohm	10 ¹⁶	10 ⁵	10 ¹⁰	10 ¹⁶	10 ¹⁶	10 ¹⁰

The information in this technical data sheet have been collected from reliable statistic series.

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