

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		310	540	495
	50		135	230	165		233		320		510
85	35	180	135		175		250	360	310	570	525
	50		145	235	200	285	250		320	590	560
105	70		150		210		260		330	620	580
118	70	185	145	240	188	290	250	375	310	650	610
123	70		155		205		260		335		620
	85	195	135	245	200	300	240		345	660	620
132	105		150		210		250		385	685	650
133	85		160		220		270		390	710	680
	90	200	135	250	210		280	420	385	750	720
145	90		150		215	320	260		400	795	760
	100		180	255	190		270		410	850	825
148	110	205	160		210		280	460	425	900	860
153	110	210	180		215	330	280		485	940	910
160	125	220	155	265	220		300		510	980	930
	130				233		300		525	1110	1070
165	130		196								

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

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"		5.625"	9.625"	8.625"		9.750"	14.750"	13.500"	24.375"	22.750"
	1.375"	7.750"	6.375"		9.625"	11.875"	11.125"		13.125"	25.625"	24.375"
3.375"	2.000"		6.000"	9.875"	7.875"		10.625"	15.125"	13.375"		24.000"
4.125"	2.750"	7.875"	7.125"		8.500"	12.625"	9.875"	15.375"	14.000"	25.875"	24.250"
4.875"	3.375"		5.875"	10.000"	8.250"		11.000"	16.500"	15.125"	27.000"	25.625"
5.750"	4.000"		5.375"		9.750"		10.625"	17.125"	16.125"	28.000"	26.750"
6.375"	5.125"	8.125"	6.375"	10.375"	8.500"	13.000"	11.750"		15.750"	29.500"	28.250"
	5.000"	8.250"	7.000"		9.125"		11.000"	18.125"	16.750"	31.250"	29.875"
6.500"	5.125"	8.625"	7.625"	10.750"	8.625"	13.375"	11.750"	19.125"	17.750"	33.500"	32.500"
6.750"	5.375"		7.375"		9.375"	13.750"	12.500"	20.125"	18.500"	35.375"	33.750"
	5.000"	9.000"	7.500"	11.000"	9.750"		12.125"	20.625"	20.125"	37.000"	35.750"
7.125"	5.875"	9.125"	6.625"		8.500"	14.125"	11.750"	21.250"	20.125"	38.625"	26.625"
	5.750"	9.250"	8.250"	11.250"	10.250"		12.875"		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
Thermal	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 confuctivity	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
Electrical	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
	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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