

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		215	310	540	495
	50		135	165	233		320	510				
85	35	180	135	230	175	285	250	360	310	570	525	
	50		145	200	250		320		590	560		
105	70	185	150	235	210	290	260	375	330	620	580	
118	70		145	240	188		250		310	650	610	
123	70	195	155	245	205	300	260	385	335	660	620	
	85		135		200		240		345		620	
132	105	200	150	250	210	320	250	435	340	685	650	
133	85		160	220	270		390		355	710	680	
	145	90	135	250	210	330	280	460	385	750	720	
100		150	190	260	435		400		795	760		
148	110	205	160	255	210	330	270	485	425	900	860	
153	110	210	180	215	280		485		450	940	910	
160	125	220	155	265	220	340	300	525	510	470	980	930
	130		233		300		495		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"		6.000"	9.500"	8.125"	11.375"	10.125"		12.125"	23.250"	22.000"
3.125"	1.875"	7.250"	5.625"	9.625"	8.625"	11.875"	9.750"	14.750"	13.500"	24.375"	22.750"
	1.375"		6.375"		9.625"		11.125"		13.125"	24.375"	22.750"
3.375"	2.000"	7.750"	6.000"	9.875"	7.875"	12.625"	10.625"	15.125"	13.375"	25.625"	24.000"
4.125"	2.750"		7.125"		8.500"		11.000"		15.375"	14.000"	25.875"
4.875"	3.375"	7.875"	5.875"	10.000"	8.250"	13.000"	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"
6.375"	5.125"	8.125"	6.375"	10.375"	8.500"	13.375"	11.750"	18.125"	15.750"	29.500"	28.250"
	5.000"		7.000"		9.125"		11.000"		16.750"	31.250"	29.875"
6.500"	5.125"	8.625"	7.625"	10.750"	8.625"	13.750"	11.750"	19.125"	17.750"	33.500"	32.500"
6.750"	5.375"		7.375"		9.375"		12.500"		20.125"	18.500"	35.375"
	5.000"	9.000"	7.500"	11.000"	9.750"	13.750"	12.125"	20.625"	20.125"	37.000"	35.750"
7.125"	5.875"	9.125"	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/cm³	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	240	260	260	240
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.
All informations are intended only as general guide lines for use at user discretion. Fluor seals does not guarantee any specific result and do not assume any liability in connection with the use of the product.



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