

ARKPEEK-Rod Size Chart

Table 1: Full PEEK Rod Sizes with Tolerances & Machining Parameters

Diameter (mm)	Diameter (inch)	Tolerance (mm)	Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cut (mm)
3 – 10	0.118 – 0.394	-0/+0.5	80 – 120	0.03 – 0.08	0.2 – 0.5
10 – 30	0.394 – 1.181	-0/+0.8	100 – 150	0.05 – 0.12	0.5 – 1.0
30 – 60	1.181 – 2.362	-0/+1	120 – 180	0.08 – 0.15	0.8 – 1.5
60 – 100	2.362 – 3.937	-0/+1	150 – 200	0.10 – 0.20	1.0 – 2.0
100 – 150	3.937 – 5.906	-0/+1	180 – 220	0.12 – 0.25	1.2 – 2.5
150 – 250	5.906 – 9.843	-0/+2	200 – 250	0.15 – 0.30	1.5 – 3.0

Table 2: Complete Size List (3 mm – 250 mm)

mm	inch	mm	inch	mm	inch	mm	inch
3	0.118	32	1.260	70	2.756	140	5.512
4	0.157	35	1.378	75	2.953	150	5.906
5	0.197	38	1.496	80	3.150	160	6.299
6	0.236	40	1.575	85	3.346	170	6.693
8	0.315	45	1.772	90	3.543	180	7.087
10	0.394	50	1.969	95	3.740	190	7.480
12	0.472	55	2.165	100	3.937	200	7.874
15	0.591	60	2.362	110	4.331	210	8.268
16	0.630	65	2.559	120	4.724	220	8.661
18	0.709	—	—	130	5.118	230	9.055
20	0.787	—	—	—	—	240	9.449
22	0.866	—	—	—	—	250	9.843
25	0.984	—	—	—	—	—	—
28	1.102	—	—	—	—	—	—
30	1.181	—	—	—	—	—	—

General Machining Guidelines for PEEK

Parameter	Recommendation
Tool Material	Carbide (K10-K20) or diamond-coated
Tool Geometry	Sharp edge, positive rake angle (5°-15°)
Cooling	Compressed air or mist cooling; avoid water-based coolants
Annealing (Stress Relief)	150°C – 200°C for 2-4 hours, slow cool in oven
Drilling	Use peck drilling; pilot hole recommended for diameters > 10 mm
Surface Finish	Typically 0.4-1.6 μm Ra achievable with proper parameters