

EP – group of self lubricating bearing materials

1. Structure

Injection moulded plastic with additives homogenous composite:

EP - PA + PTFE + glass fibre + graphite, colour: black

EP12 - POM + PTFE, colour: white

EP43 - PPS + PTFE + Aramid, colour: brown

EP63 - PEEK + PTFE + Aramid, colour: black

EP73 - PAI + PTFE+ graphite, colour: black

2. Characteristics

- suitable for rotating, oscillating, reciprocating and linear motions,
- manufactured by precision injection moulding,
- optimum performance under light-duty conditions,
- can also work in lubrication conditions,
- high wear and chemical resistance,
- low water absorption,
- EP standard range bushes are interchangeable with DU standard metric range bushes.

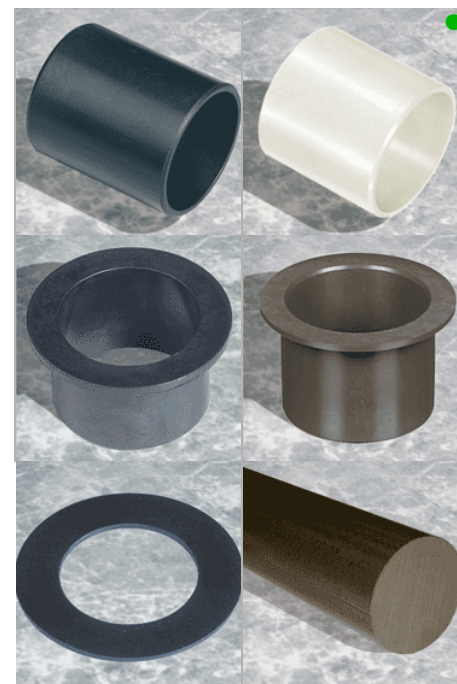
3. Applications

- presses, electric engines, valves, machine tools, medical equipment, awnings and blinds, scientific equipment, gaming equipment, office equipment, etc.

4. Availability

- from stock: EP cylindrical bushes, EP flanged bushes,
- to order: EP non standard parts, EP12 bushes and non standard parts, EP22 bushes and non standard parts, EP43 bushes, semi-finished parts and non standard parts, EP63 bushes and non standard parts, EP73 bushes and non standard parts.

5. Technical data



Parameter		Unit	Value				
			EP	EP12	EP43	EP63	EP73
Maximum load	static	MPa	80	65	83	90	105
	dynamic		40	-	-	-	-
Maximum sliding speed	dry	m/s	1,0	1,0	1,0	1,0	2,5
Maximum p x v factor		MPa x m/s	1,0	0,18	3,59	2,63	1,57
Work temperature	maximum	°C	+140	+125	+240	+290	+260
	minimum		-40	-40	-100	-100	-200
Coefficient of friction	dry	-	0,15-0,3	0,18-0,3	0,11-0,2	0,12-0,21	0,19-0,31
Surface Ra finish	shaft	µm	0,4-1,0	0,1-0,5	0,1-0,5	0,2-0,8	0,2-0,8
	housing		1,8-3,2				
Fitting	shaft	-	depends from size				
	housing		H7				
Shaft hardness	standard	HB	>200				
	for longer service life		>350				

6. Working conditions

	EP	EP12	EP43	EP63	EP73
dry	good	good	good	good	good
oil lubricated	good	good	good	good	good
grease lubricated	good	good	good	good	good
water lubricated	fair	fair	fair	fair	fair
process fluid lubricated	fair	good	good	good	fair

7. Assembly tips

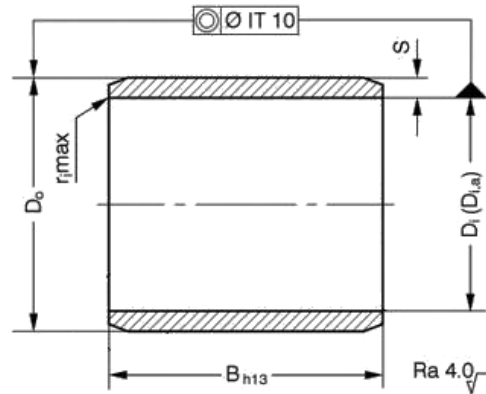
Housing's tolerance range H7 refers to -10°C to +80°C work temperature range. At higher temperature the tolerance increases for about 0,15% every 10°C.

After-machining is permissible.

Assembly by press-fit (phase on the housing is necessary). Bushes have phases on both ends.

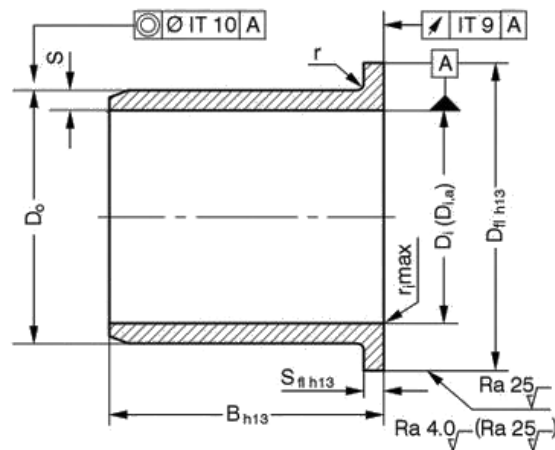
Hardened steel shafts are recommended.

8. Series range



Tab. 1. EP cylindrical bushes

Symbol	Di	Do	B	Symbol	Di	Do	B	Symbol	Di	Do	B	Symbol	Di	Do	B
0505EP	5	7	4,9	0815EP	8	10	14,9	1220EP	12	14	19,9	2515EP	25	28	14,8
0508EP	5	7	7,9	1004EP	10	12	3,9	1415EP	14	16	14,9	2520EP	25	28	19,8
0510EP	5	7	9,9	1006EP	10	12	5,9	1420EP	14	16	19,9	2530EP	25	28	29,8
0606EP	6	8	5,9	1008EP	10	12	7,9	1425EP	14	16	24,9	3020EP	30	34	19,8
0608EP	6	8	7,9	1010EP	10	12	9,9	1515EP	15	17	14,9	3030EP	30	34	29,8
0610EP	6	8	9,9	1015EP	10	12	14,9	1520EP	15	17	19,9	3040EP	30	34	39,8
0806EP	8	10	5,9	1020EP	10	12	19,9	1525EP	15	17	24,9				
0808EP	8	10	7,9	1210EP	12	14	9,9	2015EP	20	23	14,8				
0810EP	8	10	9,9	1212EP	12	14	11,9	2020EP	20	23	19,8				
0812EP	8	10	11,9	1215EP	12	14	14,9	2030EP	20	23	29,8				



Tab. 2. EP flanged bushes

Symbol	Di	Do	B	Dfl	Symbol	Di	Do	B	Dfl	Symbol	Di	Do	B	Dfl
BB0505EP	5	7	4,9	10,9	BB1017EP	10	12	17	18	BB1520EP	15	17	20	23
BB0604EP	6	8	3,9	11,9	BB1207EP	12	14	6,9	20	BB1617EP	16	18	17	24
BB0606EP	6	8	5,9	11,9	BB1209EP	12	14	8,9	20	BB2012EP	20	23	11	30
BB0608EP	6	8	7,9	11,9	BB1212EP	12	14	12	20	BB2017EP	20	23	16	30
BB0610EP	6	8	9,9	11,9	BB1215EP	12	14	15	20	BB2022EP	20	23	21	30
BB0806EP	8	10	5,4	14,9	BB1217EP	12	14	17	20	BB2512EP	25	28	11	35
BB0808EP	8	10	7,4	14,9	BB1220EP	12	14	20	20	BB2517EP	25	28	16	35
BB0810EP	8	10	9,9	14,9	BB1412EP	14	16	12	22	BB2522EP	25	28	21	35
BB1007EP	10	12	6,9	17,9	BB1417EP	14	16	17	22					
BB1009EP	10	12	8,9	17,9	BB1509EP	15	17	8,9	23					
BB1012EP	10	12	11,9	17,9	BB1512EP	15	17	12	23					
BB1015EP	10	12	14,9	17,9	BB1517EP	15	17	17	23					