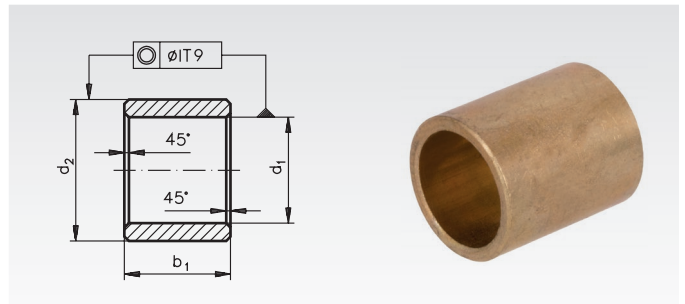


Bushes, Design J Similar to DIN 1850 (DIN 4379 Version C) Made from Sintered Bronze

Self lubricating, oil coated, pressed ready-to-install and ¹⁾ kalibrated. After press-fitting them into a rigid bearing housing with a mounting hole H7, these bearings have a bore of H7. Edges chamfered at 45°, at choice of the manufacturer. The concentricity tolerance refers to d_2 .

¹⁾ no statement regarding the surface roughness according to DIN 3141 (prenorm) can be given due to the porous structure of the sintered metal.



Ordering Details: e.g.: Product No. 623 302 00, Bronze Bush, 3 mm Bore

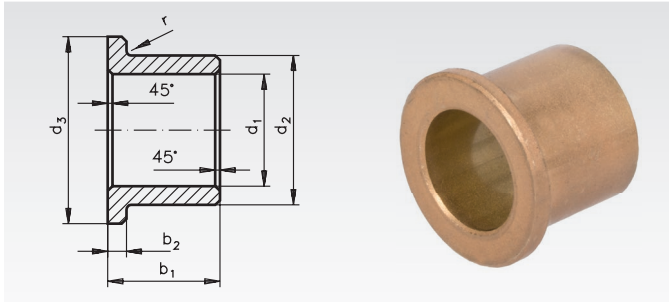
Product No.	$d_1^{F7/G7}$ mm	d_2^{S7} mm	$b_1^{\pm 0,1}$ mm	Weight g	Product No.	$d_1^{F7/G7}$ mm	d_2^{S7} mm	$b_1^{\pm 0,1}$ mm	Weight g
623 302 00	3	6	4	0,56	623 349 00	18	25	18	28,59
623 303 00	3	6	6	0,86	623 351 00	20	24	32	29,79
623 304 00	4	7	4	0,70	623 352 00	20	25	16	18,92
623 306 00	4	8	4	1,01	623 352 05	20	25	20	23,65
623 306 05	5	8	8	1,64	623 353 00	20	25	25	29,58
623 308 00	5	8	10	2,05	623 353 05	20	25	30	35,48
623 309 00	5	8	16	3,28	623 354 00	20	26	20	29,22
623 309 05	6	9	6	1,42	623 354 05	20	26	25	36,53
623 311 00	6	9	10	2,37	623 354 10	20	26	30	43,83
623 311 05	6	9	12	2,84	623 354 15	20	26	32	46,75
623 311 10	6	9	16	3,79	623 355 00	20	28	25	50,49
623 312 00	6	10	6	1,96	623 356 00	22	28	22	34,85
623 313 00	6	10	10	3,27	623 358 00	25	30	20	28,94
623 313 05	6	10	12	3,92	623 359 00	25	30	25	36,20
623 313 10	6	10	16	5,23	623 359 05	25	30	30	43,44
623 313 15	6	12	6	3,41	623 359 10	25	30	40	57,92
623 316 00	8	11	8	2,40	623 359 15	25	32	20	41,94
623 316 05	8	11	12	3,60	623 360 00	25	32	25	52,43
623 317 00	8	12	8	3,37	623 360 05	25	32	30	62,92
623 318 00	8	12	12	5,05	623 360 10	25	32	32	67,11
623 318 05	8	12	20	8,42	623 360 15	25	32	40	83,89
623 321 00	10	13	10	3,63	623 362 00	28	36	28	73,07
623 322 00	10	14	16	8,08	623 363 00	30	38	20	57,21
623 323 00	10	16	10	8,20	623 364 00	30	38	24	68,65
623 325 00	12	15	12	5,11	623 365 00	30	38	30	85,80
623 326 00	12	15	20	8,52	623 365 05	30	38	40	114,40
623 327 00	12	16	12	7,06	623 366 00	30	40	30	90,82
623 328 00	12	18	12	10,70	623 367 00	32	40	32	96,87
623 328 05	12	18	16	14,27	623 369 00	35	44	28	103,60
623 328 10	12	18	20	17,83	623 370 00	35	44	35	129,90
623 331 00	14	18	22	14,78	623 371 00	35	45	35	147,26
623 331 05	14	20	12	12,85	623 372 00	36	45	36	139,20
623 332 00	14	20	14	14,99	623 374 00	40	46	32	86,82
623 335 00	15	19	20	14,30	623 374 05	40	46	40	108,53
623 336 00	15	21	16	18,16	623 375 00	40	50	25	118,30
623 339 00	16	20	16	12,15	623 376 00	40	50	40	189,31
623 340 00	16	20	20	15,28	623 377 00	45	55	45	236,67
623 341 00	16	20	25	18,95	623 378 00	45	56	45	263,11
623 341 05	16	20	32	24,26	623 379 00	50	56	32	107,04
623 342 00	16	22	16	19,18	623 379 05	50	56	50	167,25
623 343 00	16	22	20	23,95	623 380 00	50	60	32	185,13
623 343 05	16	22	30	35,93	623 380 05	50	60	40	231,42
623 346 00	18	22	18	15,14	623 381 00	50	60	50	289,27
623 347 00	18	24	18	23,83					
623 348 00	18	24	28	37,09					

Technical Data:

Surface pressure: max. 35 N/mm²,
depending on speed and diameter

Loctite bonding products (bearing adhesive) page 812.

**Flange Bushes Version V Similar to DIN 1850 (DIN 4379 Shape F)
Made from Sintered Bronze for Plain Bearings**



Self lubricating, oil coated, pressed ready-to-install and ¹⁾ kalibrated. After press-fitting them into a rigid bearing housing with a mounting hole H7, these bearings have a bore of H7.

Ordering Details: e.g.: Product No. 623 501 00, Flange Bronze Bush, 3 mm Bore

Product No.	d ₁ ^{G8} mm	d ₂ ^{S8} mm	d ₃ ^{js13} mm	b ₁ ^{js13} mm	b ₂ ^{js14} mm	Weight g
623 501 00	3	6	9	4	1,5	0,92
623 502 00	3	6	9	10	1,5	1,77
623 504 00	4	8	12	4	2	1,79
623 504 05	4	8	12	12	2	3,87
623 508 00	6	10	14	6	2	3,03
623 509 00	6	10	14	10	2	4,38
623 510 00	6	10	14	16	2	6,40
623 512 00	8	12	16	8	2	4,53
623 513 00	8	12	16	12	2	6,22
623 514 00	8	12	16	16	2	7,91
623 517 00	10	13	16	10	1,5	9,08
623 518 00	10	13	16	16	1,5	6,50
623 518 05	10	15	20	10	3	9,34
623 518 10	10	16	22	10	3	11,80
623 518 15	10	16	22	16	3	16,72
623 520 00	12	15	18	12	1,5	5,89
623 521 00	12	15	18	16	1,5	7,60
623 521 05	12	17	22	20	2,5	18,33
623 522 00	12	17	22	12	3	11,71
623 523 00	12	18	24	20	3	22,91
623 524 00	14	18	22	14	2	11,10
623 527 00	16	20	24	16	2	13,96
623 528 00	16	20	24	20	2	17,17
623 528 05	16	22	28	25	3	34,71
623 529 00	16	22	28	16	3	23,95
623 530 00	16	22	28	20	3	28,63
623 532 00	18	22	26	18	2	17,10
623 533 00	18	24	30	18	3	28,97
623 534 00	20	24	28	16	2	17,03
623 535 00	20	24	28	20	2	20,70
623 535 05	20	26	32	15	3	21,77
623 536 00	20	26	32	16	3	28,94
623 537 00	20	26	32	20	3	34,45
623 538 00	20	26	32	25	3	41,69
623 538 05	20	26	32	32	3	51,94
623 539 00	20	28	35	20	4	49,67
623 540 00	25	30	35	20	2,5	33,20
623 541 00	25	30	35	25	2,5	40,38
623 541 05	25	32	39	25	3,5	64,58
623 542 00	28	33	38	22	2,5	39,96
623 542 05	28	33	38	36	2,5	62,42
623 543 00	28	36	44	22	4	72,72
623 544 00	30	38	46	20	4	71,36
623 544 05	30	38	46	25	4	85,67
623 544 10	30	38	46	30	4	99,97
623 547 00	36	45	54	28	4,5	128,44
623 547 05	36	45	54	36	4,5	159,12
623 551 00	36	45	54	22	4,5	105,42
623 550 00	40	46	52	40	3	117,83
623 552 00	40	50	60	25	5	147,26
623 552 05	40	50	60	40	5	218,27
623 555 00	50	60	70	32	5	219,32
623 555 05	50	60	70	50	5	323,46

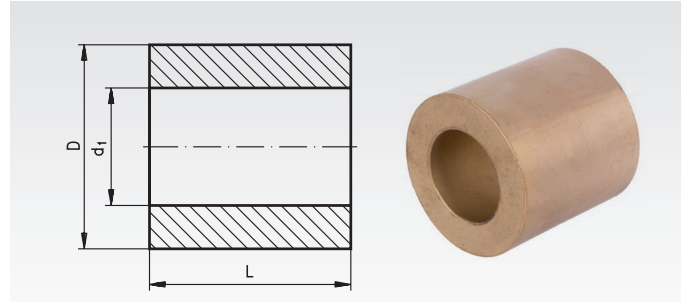
Edges chamfered at 45°, at choice of the manufacturer.

The concentricity tolerance refers to d₂.

¹⁾ no statement regarding the surface roughness according to DIN 3141 (prenorm) can be given due to the porous structure of the sintered metal.

Dimension r: For bores 3 - 8 mm = 0.3 mm, bores 9 - 22 mm = 0.6 mm, bores 25 - 40 mm = 0.8 mm

**Raw Material of Sintered Bronze with Bore
for Plain Bearing Production**

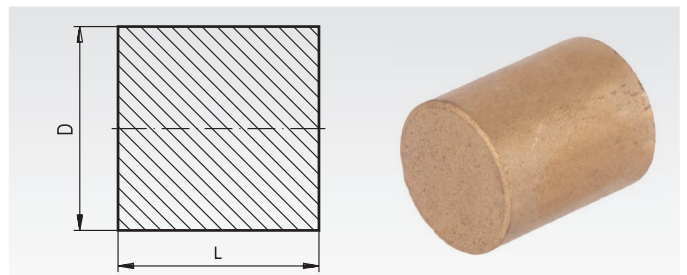


Tube of sintered bronze to be machined into plain bearings. After machining, the work piece should be coated with lubricants.

Ordering Details: e.g.: Product No. 623 390 20, Raw Material, 38/66 x 65mm

Tube Product No.	d ₁ mm	D mm	L mm	Weight kg
623 390 20	38±1	66±1,5	65±2	0,99
623 390 25	38±1	66±1,5	120±2	1,84
623 390 30	45±1	105±1,5	120±2	5,68
623 390 35	53±1	85±1,5	65±2	1,51
623 390 37	53±1	85±1,5	120±2	2,79
623 390 38	68±1	104±1,5	65±2	2,12
623 390 40	68±1	104±1,5	120±2	3,91
623 390 45	83±1	123±1,5	65±2	2,82
623 390 47	83±1	123±1,5	120±2	5,21
623 390 48	98±1	142±1,5	65±2	3,61
623 390 50	98±1	142±1,5	120±2	6,66

**Raw Material of Sintered Bronze without Bore
for Plain Bearing Production**



Solid material of sintered bronze to be machined into plain bearings. After machining, the work piece should be coated with lubricants.

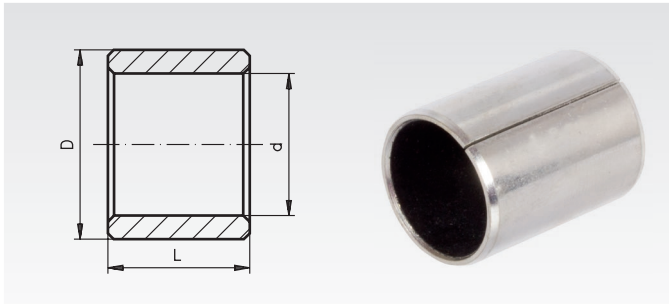
Ordering Details: e.g.: Product No. 623 395 20, Raw Material 15 x 30 mm

Solid Material Product No.	D mm	L mm	Weight kg
623 395 20	15±0,8	30±1,5	0,04
623 395 23	20±0,8	25±1,5	0,06
623 395 25	20±0,8	50±1,5	0,11
623 395 27	25±0,8	25±1,5	0,08
623 395 30	25±0,8	50±1,5	0,16
623 395 33	32±0,8	40±1,5	0,22
623 395 35	32±0,8	80±1,5	0,43
623 395 40	42±0,8	50±1,5	0,46
623 395 43	42±0,8	100±2	0,92
623 395 45	45±1	90±2	0,96
623 395 47	52±1	60±2	0,82
623 395 48	52±1	120±2	1,64
623 395 50	62±1,5	120±2	2,43
623 395 55	70±1,5	120±2	3,09

Technical Data:

Surface pressure: max. 35 N/mm², dependent on speed and diameter.

Cylindrical Bushes, Slotted (Without Any Lubrication)



Plain bearing bush from steel sheet with multi-porous bronze layer and sliding surface from PTFE-lead-compound. Specially suited for lubrication-free running, for high loads, extrem temperatures.

Ordering Details: e.g.: Product No. 624 003 04, Cylindrical Bush, 3 mm Bore

Product No.	d x D x L mm	Weight g	Product No.	d x D x L mm	Weight g
624 003 04	3 x 4,5 x 4	0,1	624 016 20	16 x 18 x 20	8,1
624 003 05	3 x 4,5 x 5	0,3	624 016 25	16 x 18 x 25	10,1
624 003 06	3 x 4,5 x 6	0,4	624 018 20	18 x 20 x 20	8,9
624 004 04	4 x 5,5 x 4	0,3	624 020 10	20 x 23 x 10	8,8
624 004 06	4 x 5,5 x 6	0,6	624 020 12	20 x 23 x 12	8,8
624 004 08	4 x 5,5 x 8	0,9	624 020 15	20 x 23 x 15	11,6
624 005 05	5 x 7,0 x 5	0,7	624 020 20	20 x 23 x 20	15,1
624 005 08	5 x 7,0 x 8	1,1	624 020 30	20 x 23 x 30	23,0
624 006 05	6 x 8,0 x 5	0,7	624 022 20	22 x 25 x 20	16,6
624 006 06	6 x 8,0 x 6	0,9	624 024 25	24 x 27 x 25	23,8
624 006 10	6 x 8,0 x 10	1,7	624 025 15	25 x 28 x 15	14,2
624 007 10	7 x 9,0 x 10	1,8	624 025 20	25 x 28 x 20	16,6
624 008 06	8 x 10 x 6	1,2	624 025 25	25 x 28 x 25	23,9
624 008 08	8 x 10 x 8	1,7	624 025 30	25 x 28 x 30	28,4
624 008 10	8 x 10 x 10	2,1	624 025 40	25 x 28 x 40	37,3
624 009 10	9 x 11 x 10	2,2	624 026 15	26 x 30 x 15	15,6
624 010 06	10 x 12 x 6	1,9	624 026 20	26 x 30 x 20	26,1
624 010 08	10 x 12 x 8	2,0	624 026 30	26 x 30 x 30	39,0
624 010 10	10 x 12 x 10	2,5	624 028 20	28 x 32 x 20	28,8
624 010 12	10 x 12 x 12	2,9	624 028 25	28 x 32 x 25	39,0
624 010 15	10 x 12 x 15	3,8	624 030 12	30 x 34 x 12	17,5
624 010 20	10 x 12 x 20	5,3	624 030 15	30 x 34 x 15	22,9
624 012 06	12 x 14 x 6	1,7	624 030 20	30 x 34 x 20	30,9
624 012 08	12 x 14 x 8	2,0	624 030 30	30 x 34 x 30	46,1
624 012 10	12 x 14 x 10	3,0	624 030 35	30 x 34 x 35	53,0
624 012 12	12 x 14 x 12	3,7	624 032 20	32 x 36 x 20	32,0
624 012 15	12 x 14 x 15	4,7	624 032 25	32 x 36 x 25	40,2
624 012 20	12 x 14 x 20	6,1	624 035 20	35 x 39 x 20	35,4
624 014 10	14 x 16 x 10	3,6	624 035 40	35 x 39 x 40	70,8
624 014 20	14 x 16 x 20	7,1	624 038 30	38 x 42 x 30	56,9
624 015 10	15 x 17 x 10	3,8	624 040 20	40 x 44 x 20	40,0
624 015 12	15 x 17 x 12	4,5	624 040 30	40 x 44 x 30	60,2
624 015 15	15 x 17 x 15	5,7	624 040 50	40 x 44 x 50	101,5
624 015 20	15 x 17 x 20	7,6	624 050 30	50 x 55 x 30	95,0
624 016 10	16 x 18 x 10	4,6	624 050 50	50 x 55 x 50	159,9
624 016 15	16 x 18 x 15	6,1			

Construction

Tin-plated steel back (incl. edges). Multi-porous bronze layer, sliding surface PTFE-lead-compound.

Technical data

Stat. surface pressure	max. 250 N/mm ²
Dyn. bearing load	max. 56 N/mm ²
Friction coefficient	von 0,03 - 0,20
Sliding speed	max. 2 m/s
Temperature range	-195°C to + 280°C
Therm. conductivity	40 W/K · m

Recommended mounting tolerances

Housing bore H7, shaft tolerance up to 55 Ø f7 above 55 Ø h8

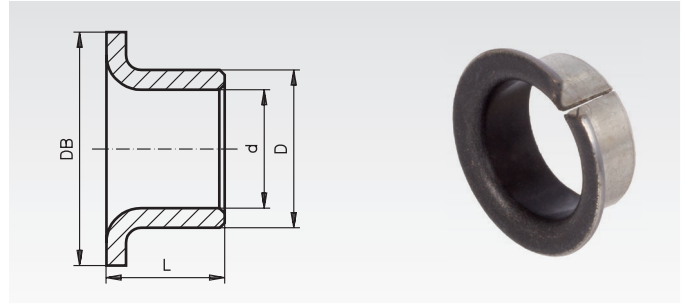
Paired contact surface

Recommended: hardened contact surfaces with a surface roughness of R_z3 and finer.

Main characteristics

Self lubricating and maintenance free, ready to install. Perfectly suited for lower sliding speeds. Low wear, low friction coefficient, no „stick slip“. Perfectly suited for circular, swivelling and partly for axial movement. Can be used at extremely high bearing loads. No moisture absorption. High corrosion resistance.

Flange Bushes, Slotted (Without Any Lubrication)



Plain bearing flange bush from steel sheet with multi-porous bronze layer and sliding surface from PTFE-lead-compound. Specially suited for lubrication-free running, for high loads, extrem temperatures.

Ordering Details: e.g.: Product No. 624 103 04, Flange Bush, 3mm Bore

Product No.	d x D / DB x L mm	Weight g
624 103 04	3 x 4,5 / 7 x 5	0,3
624 104 04	4 x 5,5 / 9 x 5,6	0,5
624 105 05	5 x 7 / 10 x 6	0,9
624 106 06	6 x 8 / 12 x 7	1,4
624 108 06	8 x 10 / 15 x 5,5	1,9
624 108 08	8 x 10 / 15 x 9,5	2,3
624 110 08	10 x 12 / 18 x 9	2,9
624 110 12	10 x 12 / 18 x 12	4,0
624 112 15	12 x 14 / 20 x 17	5,6
624 114 15	14 x 16 / 22 x 17	6,2
624 115 12	15 x 17 / 23 x 12	5,0
624 115 20	15 x 17 / 23 x 17	8,5
624 116 20	16 x 18 / 24 x 17	9,1
624 118 12	18 x 20 / 26 x 12	6,6
624 120 12	20 x 23 / 30 x 11,5	13,7
624 122 20	22 x 25 / 32 x 21,5	21,0
624 125 25	25 x 28 / 35 x 26,5	27,3
624 130 30	30 x 34 / 42 x 30	53,3
624 135 20	35 x 39 / 47 x 26	46,0
624 135 40	35 x 39 / 47 x 40	81,4
624 140 40	40 x 44 / 53 x 26	92,0
624 150 40	50 x 55 / 60 x 22	145,8

Note:

According to DIN ISO 3547 the supplied bush may be unround and with open slot. After pressing the slotted bush into an H7-bore, it usually is round and the gap (the slot) is closed.

Loctite bonding products (bearing adhesive) page 812.

Mounting instructions

The edges of the mounting hole must be rounded or chamfered. We recommend using an arbor press for mounting. The gliding surface must not be damaged. The butt joint must be located opposite the load area. Once mounted the bearing has pressfit. Glueing is possible, but not necessary.

Application range

Where no lubrication is possible: textile machinery, controls and instruments, packing plants, electronic goods, medical equipment, paper machines, food-processing machines, brake and pump manufacturing, etc.

Where lubrication is often neglected:

agricultural and construction machinery, fork lift trucks, etc.

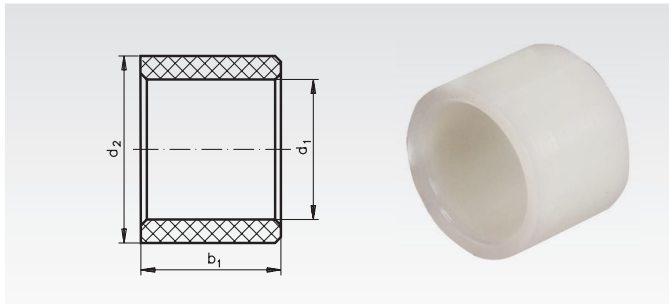
Where lubricants should be used sparingly:

car and motorbike manufacture, machine tool building, conveyor plants, escalator manufacture, hoisting devices, turbine manufacturing, steel construction for hydraulic engineering, etc.

Service life

The service life of the bearing depends on ambient conditions as: sliding speed, load, temperature, on-time, paired contact surface, etc. For lower wear, please regard the load and mounting instructions above, and protect the bearing from corrosive influences and large amounts of dirt.

Bushes BP, Polyamide 6.6 Die Cast

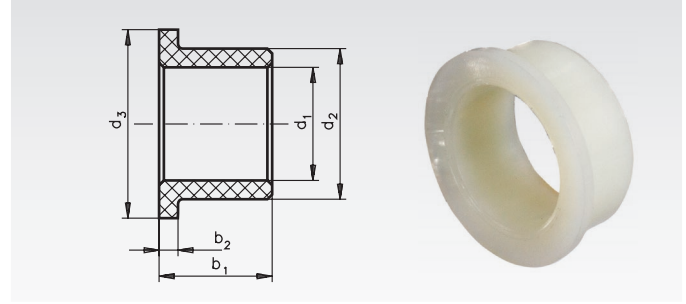


Plain bearing bush from low cost thermoplast. Low friction. Specially suited for simpler applications at normal temperatures.

Ordering Details: e.g.: Product No. 623 708 00, Bush BP, 8 mm Bore

Product No.	d ₁ mm	Tolerance mm		d ₂ mm	Tolerance mm		b ₁ mm	Weight g
623 708 00	8	+0,06	+0,10	12	+0,10		10	1,0
623 709 00	8	+0,06	+0,10	14	+0,10		10	1,3
623 711 00	10	+0,08	+0,12	12	+0,10		10	0,5
623 712 00	10	+0,08	+0,12	14	+0,10		10	1,0
623 713 00	10	+0,08	+0,12	16	+0,12		10	1,5
623 715 00	12	+0,10	+0,14	14	+0,10		10	0,7
623 716 00	12	+0,10	+0,14	16	+0,12		10	1,0
623 717 00	12	+0,10	+0,14	18	+0,12		14	1,0
623 721 00	15	+0,12	+0,18	20	+0,12		15	2,5
623 722 00	15	+0,12	+0,18	22	+0,14		15	3,5
623 723 00	15	+0,12	+0,18	25	+0,14		15	5,5
623 725 00	16	+0,13	+0,19	20	+0,12		15	2,0
623 726 00	16	+0,13	+0,19	22	+0,14		15	3,2
623 727 00	16	+0,13	+0,19	24	+0,14		15	4,2
623 732 00	20	+0,16	+0,23	24	+0,14		15	2,5
623 733 00	20	+0,16	+0,23	25	+0,14		15	3,0
623 734 00	20	+0,16	+0,23	26	+0,14		20	5,0
623 735 00	20	+0,16	+0,23	28	+0,15		20	7,0
623 736 00	20	+0,16	+0,23	30	+0,15		20	9,0
623 740 00	25	+0,18	+0,25	30	+0,15		20	5,0
623 741 00	25	+0,18	+0,25	30	+0,15		32	7,8
623 742 00	25	+0,18	+0,25	32	+0,15		20	7,0
623 743 00	25	+0,18	+0,25	35	+0,18		20	10,5
623 746 00	28	+0,20	+0,28	32	+0,15		20	4,2
623 748 00	28	+0,20	+0,28	38	+0,18		19	11,2
623 750 00	30	+0,21	+0,30	35	+0,18		20	5,7
623 751 00	30	+0,21	+0,30	36	+0,18		30	10,5
623 752 00	30	+0,21	+0,30	40	+0,18		30	18,0
623 754 00	32	+0,22	+0,32	36	+0,18		30	7,5
623 755 00	32	+0,22	+0,32	40	+0,18		30	15,5
623 762 00	40	+0,24	+0,36	45	+0,20		40	14,5
623 763 00	40	+0,24	+0,36	48	+0,20		40	25,0
623 764 00	40	+0,24	+0,36	50	+0,20		40	32,0
623 768 00	50	+0,30	+0,43	56	+0,22		50	43,0
623 769 00	50	+0,30	+0,43	60	+0,22		50	48,5
623 771 00	54	+0,32	+0,46	62	+0,22		60	48,5
623 774 00	60	+0,34	+0,48	70	+0,24		60	68,0

Flanged Bushes BBP, Polyamide 6.6 Die Cast



Plain bearing flange bush from low cost thermoplast. Low friction. Specially suited for simpler applications at normal temperatures.

Ordering Details: e.g.: Product No. 623 806 00, Flange Bush BBP, 6 mm Bore

Product No.	d ₁ mm	Tolerance mm		d ₂ mm	Tolerance mm		d ₃ mm	b ₂ mm	b ₁ mm	Weight g
623 806 00	6	+0,06	+0,10	10	+0,10		15	1,5	8	0,8
623 808 00	8	+0,06	+0,10	12	+0,10		16	2	6	0,8
623 809 00	8	+0,06	+0,10	14	+0,10		20	2	10	1,7
623 811 00	10	+0,08	+0,12	12	+0,10		16	2	6	0,6
623 812 00	10	+0,08	+0,12	14	+0,10		20	2	10	1,3
623 813 00	10	+0,08	+0,12	16	+0,12		20	2	10	1,8
623 815 00	12	+0,10	+0,14	14	+0,10		20	2	10	1,0
623 816 00	12	+0,10	+0,14	16	+0,12		20	2	10	1,5
623 819 00	14	+0,11	+0,17	20	+0,12		30	2	24	2,8
623 825 00	16	+0,13	+0,19	20	+0,12		28	2	15	2,8
623 826 00	16	+0,13	+0,19	22	+0,14		30	2	15	4,0
623 827 00	16	+0,13	+0,19	24	+0,14		30	2	15	5,0
623 832 00	20	+0,16	+0,23	24	+0,14		30	2	15	3,0
623 833 00	20	+0,16	+0,23	25	+0,14		30	2	15	3,5
623 834 00	20	+0,16	+0,23	26	+0,14		30	2	12	3,5
623 835 00	20	+0,16	+0,23	26	+0,14		32	2	15	4,5
623 836 00	20	+0,16	+0,23	26	+0,14		32	3	20	5,8
623 837 00	20	+0,16	+0,23	30	+0,15		36	3	20	9,7
623 840 00	25	+0,18	+0,25	30	+0,15		36	3	20	6,0
623 841 00	25	+0,18	+0,25	32	+0,15		40	3	20	8,5
623 842 00	25	+0,18	+0,25	35	+0,18		45	3	20	12,7
623 843 00	25	+0,18	+0,25	35	+0,18		45	4	30	18,5
623 846 00	28	+0,20	+0,28	32	+0,15		40	4	30	8,0
623 848 00	28	+0,20	+0,28	38	+0,18		48	4	30	20,0
623 850 00	30	+0,21	+0,30	32	+0,15		40	4	30	5,0
623 851 00	30	+0,21	+0,30	35	+0,18		45	4	30	11,5
623 852 00	30	+0,21	+0,30	38	+0,18		48	4	30	17,0
623 854 00	32	+0,22	+0,32	35	+0,18		45	4	30	8,5
623 855 00	32	+0,22	+0,32	38	+0,18		48	4	30	18,5
623 856 00	32	+0,22	+0,32	40	+0,18		50	4	30	19,0
623 862 00	40	+0,24	+0,36	44	+0,20		54	5	40	16,5
623 863 00	40	+0,24	+0,36	48	+0,20		58	5	40	30,0
623 864 00	40	+0,24	+0,36	50	+0,20		60	5	40	36,0
623 868 00	50	+0,30	+0,43	56	+0,22		70	5	50	34,5
623 869 00	50	+0,30	+0,43	60	+0,22		70	5	50	52,0
623 874 00	60	+0,34	+0,48	70	+0,24		80	5	60	74,0

Description and technical data

Material: Thermoplastic polyamide 6.6.

- Low cost.
- Low friction, suitable for lubrication-free running.
- High moisture absorption, low dimension stability.

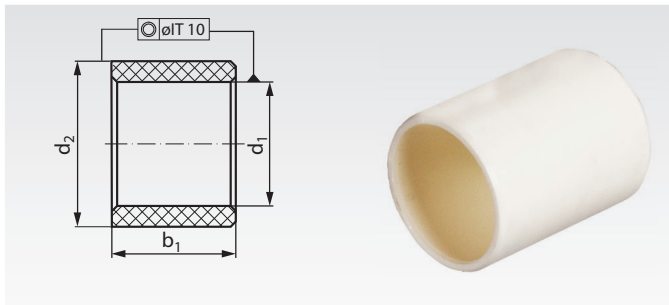
Typical for polyamide parts is the high moisture absorption. But if the bushes and flange bushings are conditioned, i.e. saturated with moisture before mounting, then usually dimensional changes due to the degree of moisture play a much smaller role than dimensional changes due to temperature.

Technical data:

Surface pressure max.:	18 N/mm ² , dependant on sliding speed and bearing temperature
Sliding Speed:	2 m/s
Lubrication:	usually not required
Bearing clearance:	about 0.01 mm per mm shaft-Ø
Bearing temperature:	-40°C up to +80°C.
Coefficient of linear expansion:	8 x 10 ⁻⁵
Moisture absorption max.:	7.5%
Moisture absorption at 20°C and 50% rel. humidity:	2.4%

Mounting hole: tolerance H7.

Plain Bearings, Thermoplastic EP22™

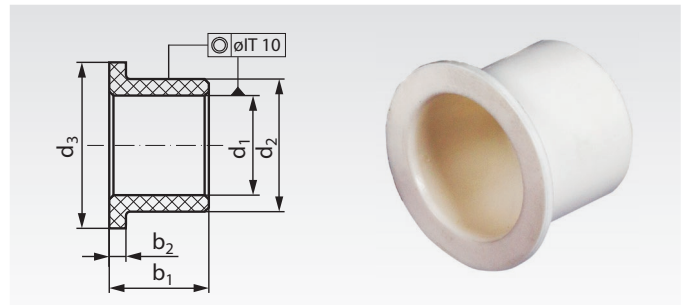


Plain bearing bush made from thermoplastic with high dimension accuracy. Low friction. Specially suited for dry-running and for use at very low up to middle high temperatures. Colour: white.

Ordering Details: e.g.: Product No. 627 208 06, Bush EP22, 8 mm Bore

Product No.	d ₁ mm	d ₂ mm	b ₁ h ¹³ mm	Tolerance d ₁ * mm	Weight g
627 208 06	8	10	6	+0,025 +0,083	0,2
627 208 08	8	10	8	+0,025 +0,083	0,3
627 208 10	8	10	10	+0,025 +0,083	0,4
627 208 12	8	10	12	+0,025 +0,083	0,5
627 208 15	8	10	15	+0,025 +0,083	0,6
627 210 04	10	12	4	+0,025 +0,083	0,2
627 210 06	10	12	6	+0,025 +0,083	0,3
627 210 08	10	12	8	+0,025 +0,083	0,4
627 210 10	10	12	10	+0,025 +0,083	0,5
627 210 15	10	12	15	+0,025 +0,083	0,7
627 210 20	10	12	20	+0,025 +0,083	1,0
627 212 10	12	14	10	+0,032 +0,102	0,6
627 212 12	12	14	12	+0,032 +0,102	0,7
627 212 15	12	14	15	+0,032 +0,102	0,9
627 212 20	12	14	20	+0,032 +0,102	1,2
627 214 12	14	16	12	+0,032 +0,102	0,9
627 214 15	14	16	15	+0,032 +0,102	1,0
627 214 20	14	16	20	+0,032 +0,102	1,4
627 214 25	14	16	25	+0,032 +0,102	1,7
627 215 15	15	17	15	+0,032 +0,102	1,1
627 215 20	15	17	20	+0,032 +0,102	1,4
627 215 25	15	17	25	+0,032 +0,102	1,7
627 216 15	16	18	15	+0,032 +0,102	1,2
627 216 20	16	18	20	+0,032 +0,102	1,6
627 216 25	16	18	25	+0,032 +0,102	1,8
627 218 20	18	20	20	+0,032 +0,102	1,8
627 218 25	18	20	25	+0,032 +0,102	2,0
627 220 10	20	23	10	+0,040 +0,124	1,5
627 220 15	20	23	15	+0,040 +0,124	2,2
627 220 20	20	23	20	+0,040 +0,124	2,9
627 220 25	20	23	25	+0,040 +0,124	3,9
627 220 30	20	23	30	+0,040 +0,124	4,4
627 225 15	25	28	15	+0,040 +0,124	2,7
627 225 20	25	28	20	+0,040 +0,124	3,6
627 230 20	30	34	20	+0,040 +0,124	6,2
627 230 30	30	34	30	+0,040 +0,124	9,3
627 240 30	40	44	30	+0,050 +0,150	12,2
627 240 40	40	44	40	+0,050 +0,150	16,3
627 250 40	50	55	40	+0,050 +0,150	25,4
627 250 50	50	55	50	+0,050 +0,150	31,7
627 260 40	60	65	40	+0,050 +0,150	30,2
627 260 60	60	65	60	+0,050 +0,150	45,4

Flanged Plain Bearings, Thermoplastic EP22™



Plain bearing flange bush from thermoplastic with high dimension accuracy. Low friction. Specially suited for dry-running and for use at very low up to middle high temperatures. Colour: white.

Ordering Details: e.g.: Product No. 627 308 05, Flange Bush EP22, 8 mm Bore

Product No.	d ₁ mm	d ₂ mm	d ₃ mm	b ₁ h ¹³ mm	b ₂ h ¹³ mm	Tolerance d ₁ * mm	Weight g
627 308 05	8	10	15	5,5	1,0	+0,025 +0,083	0,4
627 308 07	8	10	15	7,5	1,0	+0,025 +0,083	0,5
627 308 10	8	10	15	10	1,0	+0,025 +0,083	0,5
627 310 07	10	12	18	7	1,0	+0,025 +0,083	0,6
627 310 09	10	12	18	9	1,0	+0,025 +0,083	0,7
627 310 12	10	12	18	12	1,0	+0,025 +0,083	0,8
627 310 15	10	12	18	15	1,0	+0,025 +0,083	1,0
627 310 17	10	12	18	17	1,0	+0,025 +0,083	1,1
627 312 07	12	14	20	7	1,0	+0,032 +0,102	0,6
627 312 09	12	14	20	9	1,0	+0,032 +0,102	0,8
627 312 12	12	14	20	12	1,0	+0,032 +0,102	1,2
627 312 15	12	14	20	15	1,0	+0,032 +0,102	1,3
627 312 17	12	14	20	17	1,0	+0,032 +0,102	1,4
627 312 20	12	14	20	20	1,0	+0,032 +0,102	1,5
627 314 12	14	16	22	12	1,0	+0,032 +0,102	0,9
627 314 17	14	16	22	17	1,0	+0,032 +0,102	1,5
627 315 09	15	17	23	9	1,0	+0,032 +0,102	1,0
627 315 12	15	17	23	12	1,0	+0,032 +0,102	1,2
627 315 17	15	17	23	17	1,0	+0,032 +0,102	1,5
627 315 20	15	17	23	20	1,0	+0,032 +0,102	1,8
627 316 12	16	18	24	12	1,0	+0,032 +0,102	1,3
627 316 17	16	18	24	17	1,0	+0,032 +0,102	1,7
627 318 12	18	20	26	12	1,0	+0,032 +0,102	1,4
627 318 17	18	20	26	17	1,0	+0,032 +0,102	2,1
627 320 11	20	23	30	11,5	1,5	+0,040 +0,124	2,4
627 320 16	20	23	30	16,5	1,5	+0,040 +0,124	3,2
627 320 21	20	23	30	21,5	1,5	+0,040 +0,124	3,9
627 325 11	25	28	35	11,5	1,5	+0,040 +0,124	2,9
627 325 16	25	28	35	16,5	1,5	+0,040 +0,124	3,9
627 325 21	25	28	35	21,5	1,5	+0,040 +0,124	4,9
627 330 16	30	34	42	16	2,0	+0,040 +0,124	6,4
627 330 26	30	34	42	26	2,0	+0,040 +0,124	9,5
627 330 40	30	34	42	40	2,0	+0,040 +0,124	13,9
627 340 16	40	44	52	16	2,0	+0,050 +0,150	8,4
627 340 26	40	44	52	26	2,0	+0,050 +0,150	12,4
627 340 50	40	44	52	50	2,0	+0,050 +0,150	22,2
627 350 26	50	55	63	26	2,0	+0,050 +0,150	18,8
627 350 60	50	55	63	60	2,0	+0,050 +0,150	40,4
627 360 50	60	65	73	50	2,0	+0,050 +0,150	40,5
627 360 70	60	65	73	70	2,0	+0,050 +0,150	55,6

* After press-fitting in bore H7 (in toleranc center).

Description and technical data

Material: Thermoplast polybutylenterephthalat, modified (PBT + PTFE), white.

- Good price/performance ratio with high dimension accuracy
- Low friction, suitable also for lubrication-free running.
- Low Temperatures suited until -50°C.

Operating Conditions :

dry : very good.
oiled: good.
water: very good.

Field of application:

Domestic appliances, chemical equipment, office equipment, sports equipment, automotive (pedals, steering, axes), ...

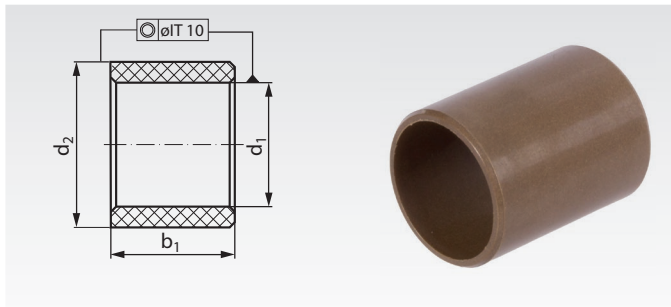
Technical data:

Surface pressure:	max. 50 N/mm ² .
Sliding Speed:	max. 1,0 m/s.
pv-value for A _H /Ac=5	0,05 N/mm ² x m/s.
pv-value for A _H /Ac=10	0,10 N/mm ² x m/s.
pv-value for A _H /Ac=20	0,20 N/mm ² x m/s.
Temperature range	-50°C to + 170°C.
Coefficient of friction	0,22 to 0,37 (dry).
Shaft surface finish	Ra 0,1 to 0,5 µm (ground).
Shaft hardness	> 200 HV.

Recommended mounting tolerances:

Housing bore H7, recommended shaft tolerance h9.

Plain Bearings, Thermoplastic EP43™



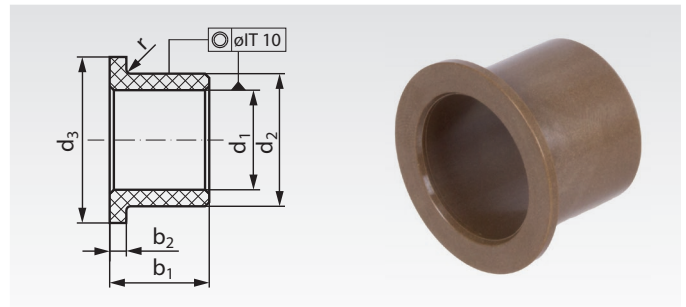
Plain bearing bush made from high sophisticated thermoplastic. Very low friction. Specially suited for dry-running and for use under water and at high temperatures. Colour: brown.

Ordering Details: e.g.: Product No. 627 008 06, Bush EP43, 8 mm Bore

Product No.	d ₁ mm	d ₂ mm	b ₁ ^{h13} mm	Tolerance d ₁ * mm	Weight g
627 008 06	8	10	6	+0.013 +0.071	0,2
627 008 08	8	10	8	+0.013 +0.071	0,3
627 008 10	8	10	10	+0.013 +0.071	0,4
627 008 12	8	10	12	+0.013 +0.071	0,5
627 008 15	8	10	15	+0.013 +0.071	0,6
627 010 04	10	12	4	+0.013 +0.071	0,2
627 010 06	10	12	6	+0.013 +0.071	0,3
627 010 08	10	12	8	+0.013 +0.071	0,4
627 010 10	10	12	10	+0.013 +0.071	0,5
627 010 15	10	12	15	+0.013 +0.071	0,7
627 010 20	10	12	20	+0.013 +0.071	1,0
627 012 10	12	14	10	+0.016 +0.086	0,6
627 012 12	12	14	12	+0.016 +0.086	0,7
627 012 15	12	14	15	+0.016 +0.086	0,9
627 012 20	12	14	20	+0.016 +0.086	1,2
627 014 15	14	16	15	+0.016 +0.086	1,0
627 014 20	14	16	20	+0.016 +0.086	1,4
627 014 25	14	16	25	+0.016 +0.086	1,7
627 015 15	15	17	15	+0.016 +0.086	1,1
627 015 20	15	17	20	+0.016 +0.086	1,4
627 015 25	15	17	25	+0.016 +0.086	1,7
627 020 15	20	23	15	+0.020 +0.104	2,2
627 020 20	20	23	20	+0.020 +0.104	2,9
627 020 30	20	23	30	+0.020 +0.104	4,4
627 025 15	25	28	15	+0.020 +0.104	2,7
627 025 20	25	28	20	+0.020 +0.104	3,6

* After press-fitting in bore H7 (in toleranc center).

Flanged Plain Bearings, Thermoplastic EP43™



Plain bearing flange bush from high sophisticated thermoplastic. Very low friction. Specially suited for dry-running and for use under water and at high temperatures. Colour: brown.

Ordering Details: e.g.: Product No. 627 108 05, Flange Bush EP43, 8 mm Bore

Product No.	d ₁ mm	d ₂ mm	d ₃ mm	b ₁ ^{h13} mm	b ₂ ^{h13} mm	r mm	Tolerance d ₁ * mm	Weight g
627 108 05	8	10	15	5,5	1,0	0,3	+0.013 +0.071	0,4
627 108 07	8	10	15	7,5	1,0	0,3	+0.013 +0.071	0,5
627 108 10	8	10	15	10	1,0	0,3	+0.013 +0.071	0,5
627 110 07	10	12	18	7	1,0	0,3	+0.013 +0.071	0,6
627 110 09	10	12	18	9	1,0	0,3	+0.013 +0.071	0,7
627 110 12	10	12	18	12	1,0	0,3	+0.013 +0.071	0,8
627 110 15	10	12	18	15	1,0	0,3	+0.013 +0.071	1,0
627 110 17	10	12	18	17	1,0	0,3	+0.013 +0.071	1,1
627 112 07	12	14	20	7	1,0	0,3	+0.016 +0.086	0,6
627 112 09	12	14	20	9	1,0	0,3	+0.016 +0.086	0,8
627 112 12	12	14	20	12	1,0	0,3	+0.016 +0.086	1,2
627 112 15	12	14	20	15	1,0	0,3	+0.016 +0.086	1,3
627 112 17	12	14	20	17	1,0	0,3	+0.016 +0.086	1,4
627 112 20	12	14	20	20	1,0	0,3	+0.016 +0.086	1,5
627 114 12	14	16	22	12	1,0	0,3	+0.016 +0.086	0,9
627 114 17	14	16	22	17	1,0	0,3	+0.016 +0.086	1,5
627 115 09	15	17	23	9	1,0	0,3	+0.016 +0.086	1,0
627 115 12	15	17	23	12	1,0	0,3	+0.016 +0.086	1,2
627 115 17	15	17	23	17	1,0	0,3	+0.016 +0.086	1,5
627 115 20	15	17	23	20	1,0	0,3	+0.016 +0.086	1,8
627 116 17	16	18	24	17	1,0	0,3	+0.016 +0.086	1,7
627 120 11	20	23	30	11,5	1,5	0,5	+0.020 +0.104	2,4
627 120 16	20	23	30	16,5	1,5	0,5	+0.020 +0.104	3,2
627 120 21	20	23	30	21,5	1,5	0,5	+0.020 +0.104	3,9
627 125 11	25	28	35	11,5	1,5	0,5	+0.020 +0.104	2,9
627 125 16	25	28	35	16,5	1,5	0,5	+0.020 +0.104	3,9
627 125 21	25	28	35	21,5	1,5	0,5	+0.020 +0.104	4,9

* After press-fitting in bore H7 (in toleranc center).

Description and technical data

Material: Thermoplast polyphenylensulfid, reinforced, modified (PPS + PTFE + aramid), brown.

- Good chemical and hydrolysis resistance.
- Low friction, optimised for dry running conditions.
- High dimensional stability.

Operating Conditions :

dry : very good.
oiled: good.
water: very good.

field of application:

Domestic appliances, conveyors, machinery, cash slot machines and many more.

Technical data:

Surface pressure.: max. 83 N/mm².
Sliding Speed: max. 1,0 m/s.
pv-value for A_H/Ac=5 0,22 N/mm² x m/s.
pv-value for A_H/Ac=10 0,90 N/mm² x m/s
pv-value for A_H/Ac=20 3,59 N/mm² x m/s .
Temperature range -40°C to + 240°C.
Coefficient of friction 0,11 to 0,20 (dry).
Shaft surface finish Ra 0,2 to 0,8 µm (ground).
Shaft hardness > 200 HV.

Recommended mounting tolerances:

Housing bore H7, recommended shaft tolerance h9.

Cylindrical Drill Bushes similar to the old Standard DIN 179, Design A

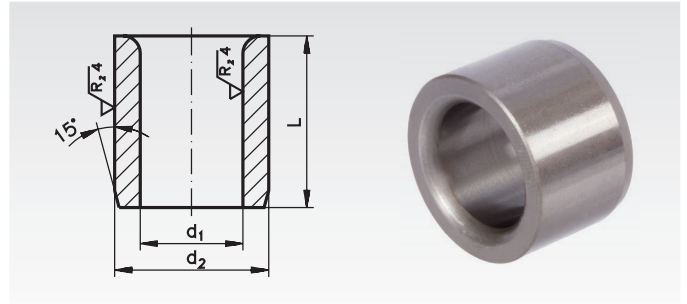
Material: up to bore 5.0 mm 1.2210 above 1.0718
Hardened, ground to tolerance inside and outside.

Hardness: 62 HRC.

Bore rounded at edge.

Mounting hole: tolerance H7.

Other dimensions and designs on request.



Ordering Details: e.g.: Product No. 622 204 08, Cylindrical Drill Bushes 4 x 8 mm

Product No.	d ₁ ^{F7} mm	d ₂ ⁿ⁶ mm	L mm	Weight g
622 204 08	4	7	8	1,6
622 204 12	4	7	12	2,3
622 205 08	5	8	8	1,9
622 205 12	5	8	12	2,8
622 206 10	6	10	10	4,0
622 206 16	6	10	16	6,1
622 208 10	8	12	10	4,8
622 208 16	8	12	16	7,7
622 210 12	10	15	12	9,0
622 210 20	10	15	20	15,0
622 212 12	12	18	12	13,0
622 212 20	12	18	20	22,0
622 213 16	13	22	16	30,0
622 214 16	14	22	16	27,0
622 214 28	14	22	28	49,0
622 215 16	15	22	16	25,0
622 215 28	15	22	28	44,0
622 216 16	16	26	16	40,0
622 216 28	16	26	28	71,0
622 218 16	18	26	16	34,0
622 218 28	18	26	28	60,0
622 220 20	20	30	20	60,0
622 222 20	22	30	20	50,0
622 225 20	25	35	20	72,0
622 230 25	30	42	25	130,0

Loctite bonding products (bearing adhesive) page 812.

Cylindrical, Flanged Drill Bushes similar to the old Standard DIN 172, Design A

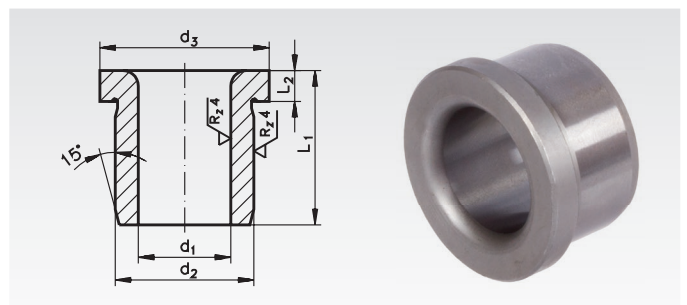
Material: 1.0718.
Hardened, ground to tolerance inside and outside.

Hardness: 62 HRC.

Bore rounded at flange side.

Mounting hole: tolerance H7.

Other dimensions and designs on request.



Ordering Details: e.g.: Product No. 622 104 08, Flanged Drill Bushes 4 x 8 mm

Product No.	d ₁ ^{F7} mm	d ₂ ⁿ⁶ mm	d ₃ mm	L ₂ mm	L ₁ mm	Weight g
622 104 08	4	7	10	2,5	8	2,3
622 104 12	4	7	10	2,5	12	3,1
622 105 08	5	8	11	2,5	8	2,6
622 105 12	5	8	11	2,5	12	3,6
622 106 10	6	10	13	3,0	10	5,0
622 106 16	6	10	13	3,0	16	7,4
622 108 10	8	12	15	3,0	10	6,1
622 108 16	8	12	15	3,0	16	9,0
622 110 12	10	15	18	3,0	12	10,7
622 110 20	10	15	18	3,0	20	16,7
622 112 12	12	18	22	4,0	12	16,5
622 112 20	12	18	22	4,0	20	25,3
622 115 16	15	22	26	4,0	16	29,0
622 116 16	16	26	30	4,0	16	46,0
622 118 16	18	26	30	4,0	16	39,0
622 120 20	20	30	34	5,0	20	67,0
622 122 20	22	30	34	5,0	20	57,0
622 126 20	26	35	39	5,0	20	74,0

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