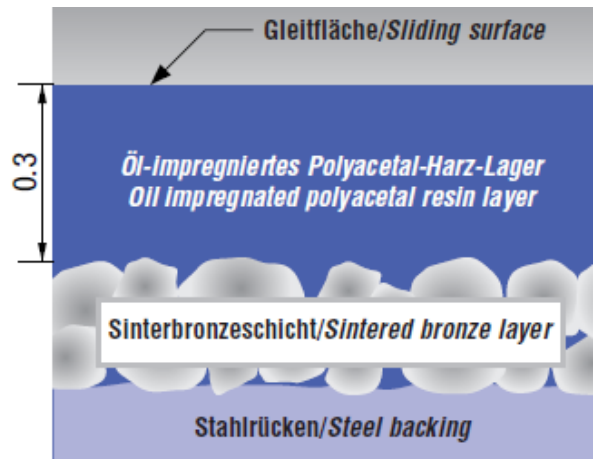
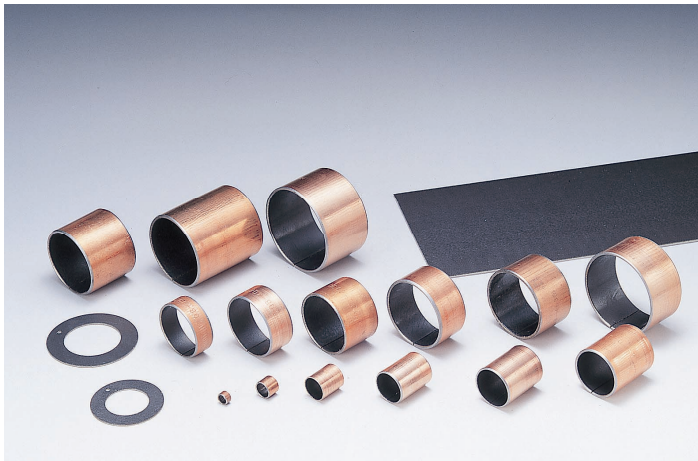


OILES Drymet ST Steel Backed Polyacetal Bearing



Features

- A self lubricating multilayer bearing with improved velocity and load carrying capacity of Oiles 80
- Consists of a surface layer of Oiles 80, a sintered bronze layer and a steel backing
- Thin wall thickness bearing for compact design
- Provides low frictional coefficient and superior load carrying capacity
- Shows excellent wear resistance in places where development of oil film is difficult due to frequent oscillating motion, reciprocating motion and starts and stops
- Possesses superior dimensional stability, mechanical strength and thermal conductivity
- Inner diameter machinable when highly accurate dimension is required

Specifications

Lubrication condition	Dry
Service temperature range	-40 to 120°C
Allowable maximum contact pressure P	Dynamic: 24.5 N/mm ² Static: 137 N/mm ²
Allowable maximum sliding velocity V	1.15 m/sec
Allowable maximum PV value	3.25 N/mm ² ·m/sec

Mechanical properties

Tensile strength	JIS Z 2241	N/mm ²	380
Elongation	JIS Z 2241	%	27
Hardness	JIS Z 2241	-----	Hv 107

Note: Values hear are nominal

The values indicated are for steel backing

Test data

Journal rotation test

<Testing conditions>

Bearing dimensions: $\phi 40 \times \phi 44 \times L30$ (mm)

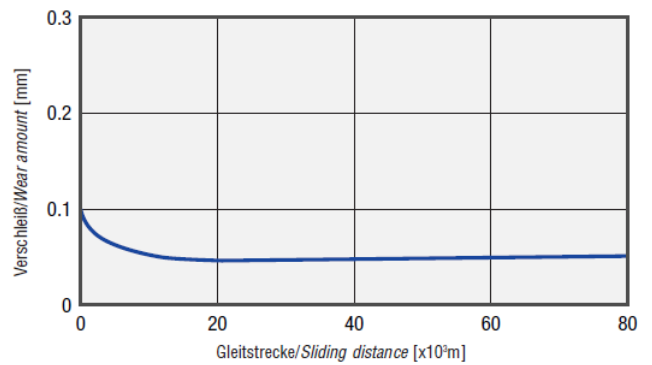
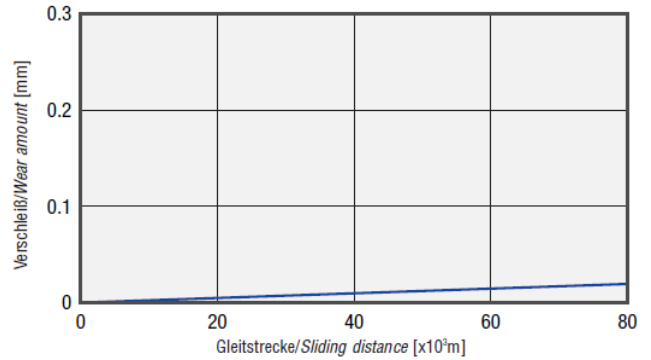
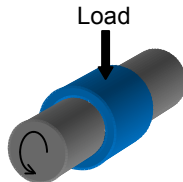
Mating material: 45C

Contact pressure: 10.3 N/mm^2

Sliding velocity: 0.092 m/sec

Testing time: 80 hrs.

Lubrication: Initial greasing



Journal rotation test

<Testing conditions>

Bearing dimensions:

Drymet St: $\phi 40 \times \phi 44 \times L30$ (mm)

Oil impregnated sintered: $\phi 40 \times \phi 50 \times L30$ (mm)

Mating material: 45C

Contact pressure: 19.6 N/mm^2

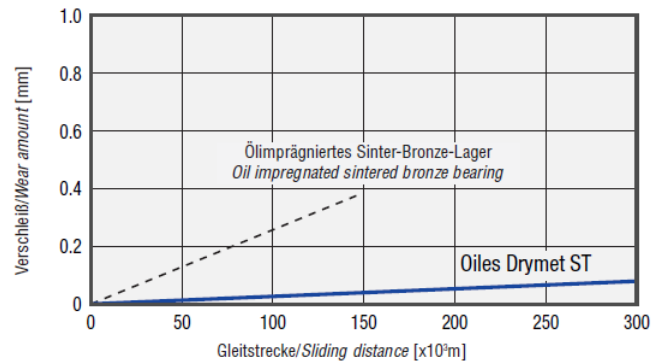
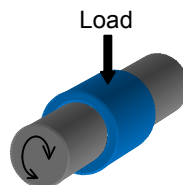
Sliding velocity: 0.023 m/sec

Oscillating cycle: 100 cycles per minute

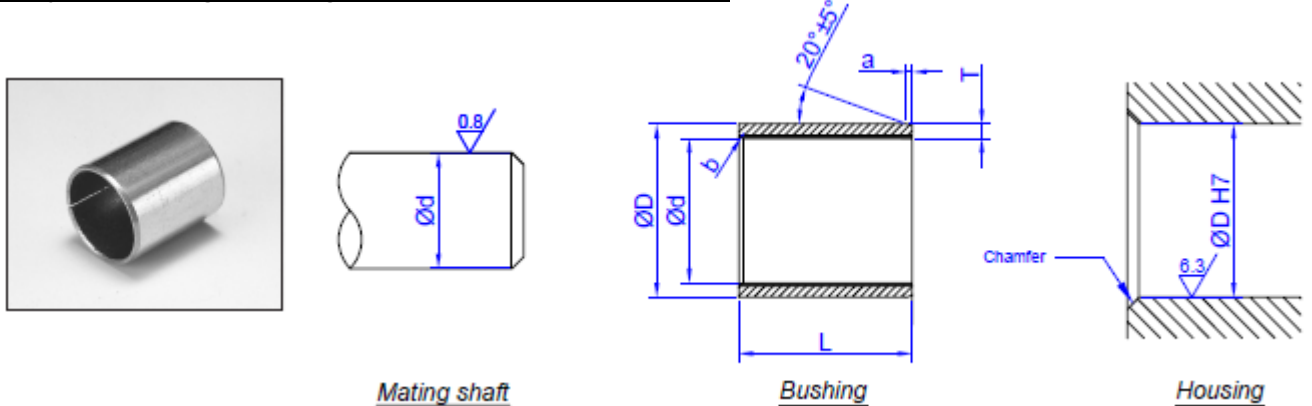
Oscillating angle: 20°

Tested cycle: 300,000cycles

Lubrication: Initial greasing



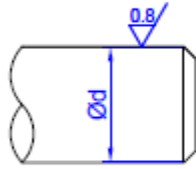
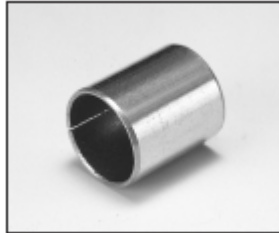
OILES Drymet ST Straight bushing (70B) Standard size ($\phi 5$ to $\phi 30$)



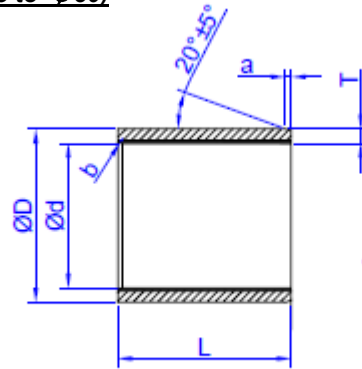
(Ordering method) Parts No: LFB-1510

Inner diameter ϕd	Outer diameter ϕD	Thickness T	a	b	Length L												Inner diameter After fitting ϕd	
					4	5	6	7	8	10	12	15	20	25	30	35		40
5	7 $\begin{matrix} +0.055 \\ +0.025 \end{matrix}$	1.0 $\begin{matrix} -0.030 \\ -0.075 \end{matrix}$	0.5	C0.3	0504	0505	0506		0508									5 $\begin{matrix} +0.165 \\ +0.060 \end{matrix}$
6	8 ↑	↑ ↑	↑	↑		0605	0606	0607	0608	0610								6 ↑
7	9 ↑	↑ ↑	↑	↑		0705		0607		0710	0712							7 ↑
8	10 ↑	↑ ↑	↑	↑			0806		0808	0810	0812							8 ↑
9	11 $\begin{matrix} +0.060 \\ +0.030 \end{matrix}$	↑ ↑	↑	↑						0910								9 $\begin{matrix} +0.168 \\ +0.060 \end{matrix}$
10	12 ↑	↑ ↑	↑	↑			1006	1007	1008	1010	1012	1015	1020					10 ↑
12	14 ↑	↑ ↑	↑	↑			1206		1208	1210	1212	1215	1220					12 ↑
13	15 ↑	↑ ↑	↑	↑								1315						13 ↑
14	16 $\begin{matrix} +0.065 \\ +0.035 \end{matrix}$	↑ ↑	↑	↑						1410	1412	1415	1420					14 ↑
15	17 ↑	$\begin{matrix} -0.035 \\ -0.085 \end{matrix}$	↑	↑						1510	1512	1515	1520	1525				15 $\begin{matrix} +0.188 \\ +0.070 \end{matrix}$
16	18 $\begin{matrix} +0.070 \\ +0.035 \end{matrix}$	↑ ↑	↑	↑						1610	1612	1615	1620	1625				16 ↑
17	19 ↑	↑ ↑	↑	↑								1715	1720					17 $\begin{matrix} +0.191 \\ +0.070 \end{matrix}$
18	20 $\begin{matrix} +0.075 \\ +0.040 \end{matrix}$	↑ ↑	↑	↑						1810	1812	1815	1820	1825				18 ↑
19	22 ↑	1.5 ↑	0.8	C0.5								1915						19 ↑
20	23 $\begin{matrix} +0.080 \\ +0.045 \end{matrix}$	↑ ↑	↑	↑						2010	2012	2015	2020	2025	2030			20 ↑
22	25 ↑	↑ ↑	↑	↑						2210	2212	2215	2220	2225	2230			22 ↑
24	27 ↑	↑ ↑	↑	↑								2415	2420	2425	2430			24 ↑
25	28 $\begin{matrix} +0.085 \\ +0.050 \end{matrix}$	↑ ↑	↑	↑						2510	2512	2515	2520	2525	2430	2535		25 ↑
26	30 ↑	$\begin{matrix} -0.035 \\ -0.090 \end{matrix}$	1.0	↑								2615	2620		2630			26 $\begin{matrix} +0.201 \\ +0.070 \end{matrix}$
28	32 $\begin{matrix} +0.090 \\ +0.050 \end{matrix}$	↑ ↑	↑	↑								2812	2815	2820	2825	2830	2840	28 $\begin{matrix} +0.205 \\ +0.070 \end{matrix}$
30	34 ↑	↑ ↑	↑	↑								3012	3015	3020	3025	3030	3040	30 ↑

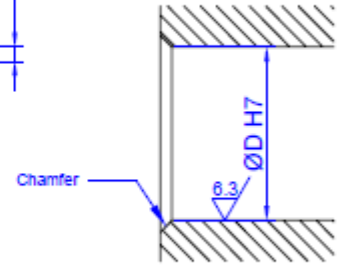
OILES Drymet ST Straight bushing (70B) Standard size (φ5 to φ30)



Mating shaft



Bushing



Housing

(Ordering method) Parts No: LFB-5030

Inner diameter ϕd	Outer diameter ϕD	Thickness T	a	b	Length L ⁰ _{-0.25}													Inner diameter After fitting ϕd					
					12	15	20	25	30	40	50	55	60	65	70	80	90		95	100	125		
31	35 +0.090 +0.050	2.0 -0.035 -0.090	1.0	C0.5				3125		3140										31	+0.205 +0.070		
32	36 ↑	↑ ↑	↑ ↑				3220	3225	3230	3240										32	↑		
35	39 +0.095 +0.055	↑ ↑	↑ ↑		3512	3515	3520	3525	3530	3540	3550									35	↑		
38	42 ↑	↑ ↑	↑ ↑				3820		3830	3840	3850									38	↑		
40	44 ↑	↑ ↑	↑ ↑		4012		4020	4025	4030	4040	4050									40	↑		
42	47 ↑	2.5 -0.040 -0.105	↑ ↑							4240	4250									42	+0.235 +0.080		
45	50 +0.100 +0.060	↑ ↑	↑ ↑				4520	4525	4530	4540	4550		4560							45	↑		
50	55 +0.105 +0.060	↑ ↑	↑ ↑				5020		5030	5040		5055	5060	5065						50	+0.240 +0.080		
55	60 +0.110 +0.065	↑ ↑	↑ ↑						5530	5540			5560		5570					55	↑		
60	65 +0.120 +0.070	↑ ↑	↑ ↑						6030	6040	6050		6060			6080				60	↑		
65	70 +0.125 +0.075	↑ -0.045 -0.095	↑ ↑						6530	6540			6560							65	+0.220 +0.090		
70	75 ↑	↑ ↑	↑ ↑							7040			7060		7080					70	↑		
75	80 +0.130 +0.075	↑ ↑	↑ ↑					7530	7540				7560		7580					75	↑		
80	85 ↑	↑ ↑	↑ ↑							8040			8060		8080					80	+0.225 +0.090		
85	90 ↑	↑ ↑	↑ ↑							8540			8560		8580					85	↑		
90	95 ↑	↑ ↑	↑ ↑							9040			9060			9090				90	↑		
100	105 +0.140 +0.080	↑ -0.060 -0.110	↑ ↑								10050				10070			10095		100	+0.255 +0.120		
110	115 ↑	↑ ↑	↑ ↑								11050				11070			11095		110	↑		
120	125 +0.145 +0.090	↑ ↑	↑ ↑								12050				12070			12095		120	+0.260 +0.120		
130	135 ↑	↑ ↑	↑ ↑								13050					13080				130125	130	↑	
140	145 +0.165 +0.100	↑ ↑	↑ ↑								14050				14080				140100	140125	140	↑	
150	155 +0.185 +0.120	↑ ↑	↑ ↑								15050				15080				150100	150125	150	↑	
160	165 ↑	↑ ↑	↑ ↑								16050					16080				160100	160125	160	↑