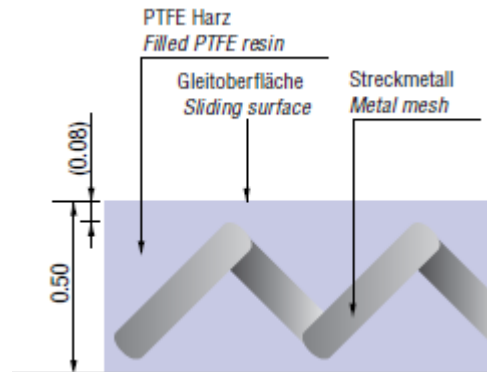
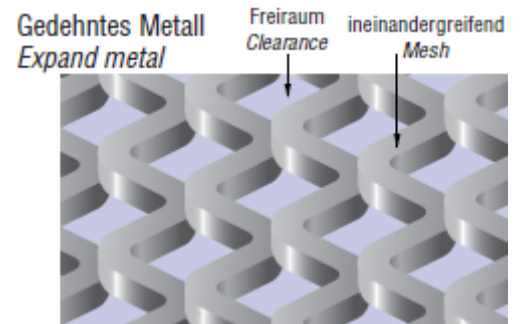


OILES Hiplast E Metal-meshed PTFE bearing / Electro conductive



Features

- A thin walled bearing for clearance-fit
- Applicable without lubrication
- Possesses low frictional coefficient load carrying resistance and wear resistance
- Thin 0.5 mm wall for compact design
- By installing according to Hiplast installation method, small clearance value (back-lash prevention) attained
- Metal mesh used for low thermal expansion co-efficient and superior heat conductivity
- Hiplast E, an electro conductive type with below features also available
- Customized design available by press forming
- Allows interference fit design



Specifications

Lubrication condition	Dry
Service temperature range	-50 to 250°C
Allowable maximum contact pressure P	Dynamic: 49.0 N/mm ² Static: 500 N/mm ²
Allowable maximum sliding velocity V	0.35 m/sec
Allowable maximum PV value	1.65 N/mm ² ·m/sec

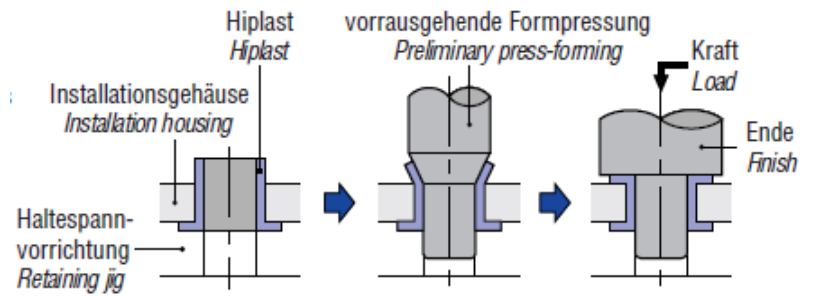
Mechanical properties

Tensile strength	JIS K 7113	N/mm ²	34.3
Elongation	-----	%	30

Note: Values here are nominal

Outline of assembly <Installation>

Hiplast may be press-formed into a double flange bushing from a single flange bushing easily. Consult an Oiles representative for the press fitting jig.



Test data

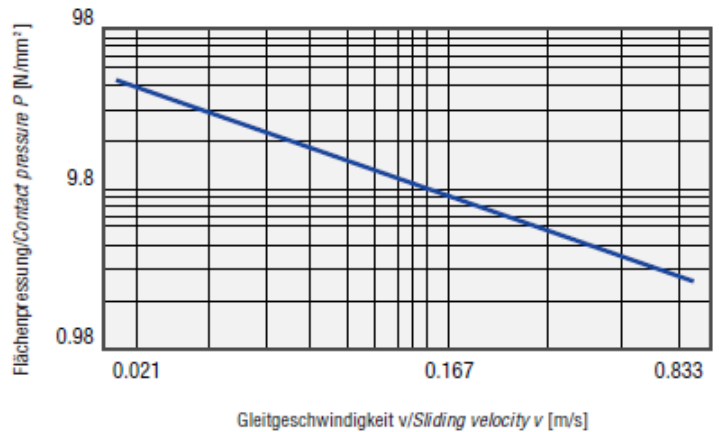
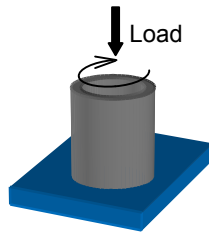
Thrust test (limit PV value)

<Testing conditions>

Mating material: 45C

Test time: 100 hrs.

Lubrication: None (Dry)



Thrust test

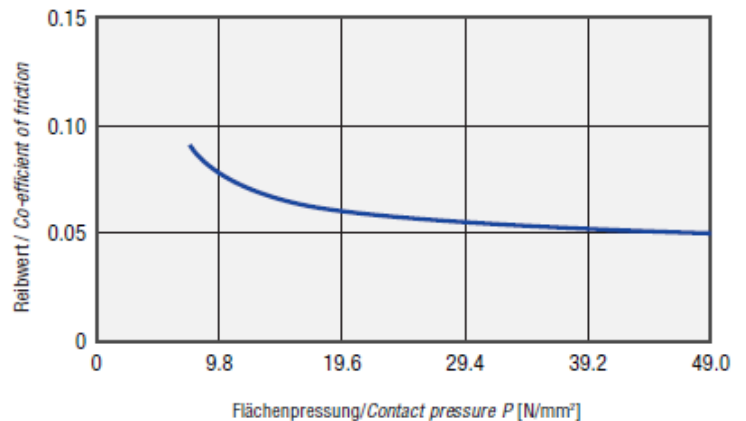
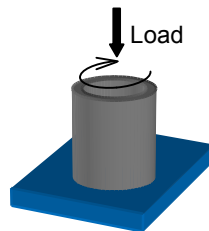
<Testing conditions>

Mating material: 45C

Contact pressure: 9.8 N/mm² is added every 1 hrs.

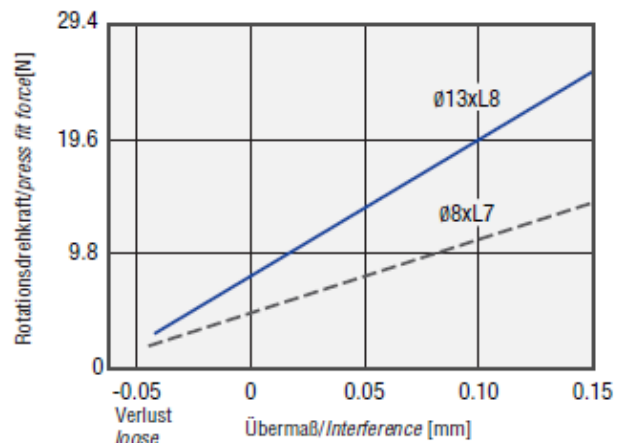
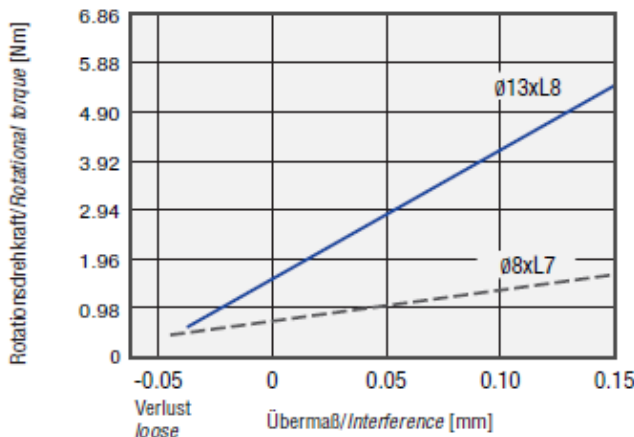
Sliding velocity: 0.083 m/sec

Lubrication: None (Dry)

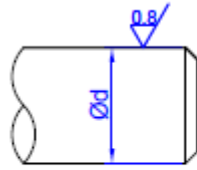
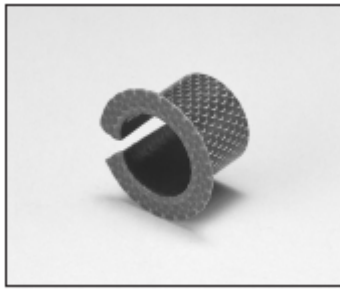


Rotational torque, pin press fit force vs. interference

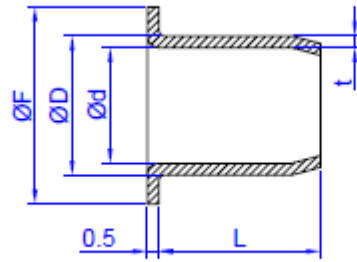
Mating shaft pin: 45C roughness up to Ry 1 μm, Press-fit dry



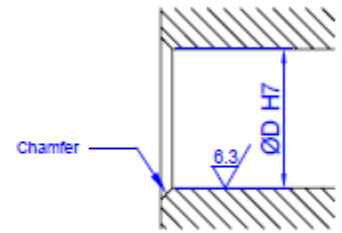
OILES Hiplast flange bushing (HPF) Standard size



Mating shaft



Bushing



Housing

(Ordering method) Parts No: **HPF-1510**

Shaft diameter	Inner diameter ϕd	Outer diameter ϕD	Flange ϕF	Thickness t	Length L ± 0.3							Inner diameter After fitting ϕd
					5	6	8	10	12	15	20	
4 $\begin{matrix} -0.040 \\ -0.055 \end{matrix}$	4 \uparrow	5 \uparrow	8	0.5 ± 0.05	0405							4 $\begin{matrix} +0.112 \\ -0.100 \end{matrix}$
5 \uparrow	5 \uparrow	6 \uparrow	10	$\uparrow \pm 0.02$	0505			0510				5 $\begin{matrix} +0.055 \\ -0.040 \end{matrix}$
6 \uparrow	6 \uparrow	7 \uparrow	11	$\uparrow \uparrow$		0606		0610				6 \uparrow
8 \uparrow	8 \uparrow	9 \uparrow	13	$\uparrow \uparrow$			0808			0815		8 \uparrow
10 $\begin{matrix} -0.040 \\ -0.058 \end{matrix}$	10 \uparrow	11 \uparrow	16	$\uparrow \uparrow$				1010		1015		10 $\begin{matrix} +0.058 \\ -0.040 \end{matrix}$
12 \uparrow	12 \uparrow	13 \uparrow	18	$\uparrow \uparrow$					1212		1220	12 \uparrow
15 \uparrow	15 \uparrow	16 \uparrow	22	$\uparrow \uparrow$						1515	1520	15 \uparrow