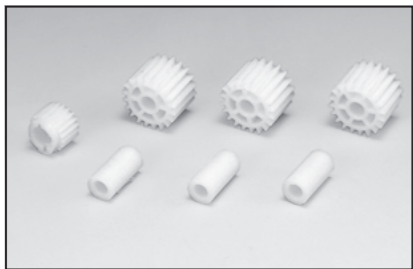


# Oiles Lutech GP Polyacetal bearings with fillers



## Feature

- Serviceable without the need for lubrication.
- Plastic parts may be used as mating parts.
- Features low coefficient of friction and low variations caused by loads.
- Prevents abnormal noises in plastic-to-plastic sliding applications.
- Has superior wear resistance.
- Injection-molded and can be made in complicated shapes. Has good mass productivity.

## Service range

Mating material	Plastic	Metal
Lubrication condition	Dry	
Service temperature range °C	-40~+80	
Allowable max. pressure <b>P</b> N/mm <sup>2</sup> {kgf/cm <sup>2</sup> }	3.92 {40}	9.81 {100}
Allowable max. velocity <b>V</b> m/s {m/min}	0.33 {20}	0.67 {40}
Allowable max. <b>PV</b> value N/mm <sup>2</sup> · m/s {kgf/cm <sup>2</sup> · m/min}	0.163 {100}	0.327 {200}

## Mechanical properties

Property	ASTM D 792	—	1.35
Specific gravity	ASTM D 638	N/mm <sup>2</sup> {kgf/cm <sup>2</sup> }	48.0 {490}
Tensile strength	ASTM D 638	%	40
Tensile elongation at break	ASTM D 790	N/mm <sup>2</sup> {kgf/cm <sup>2</sup> }	64.8 {661}
Flexural property	ASTM D 790	N/mm <sup>2</sup> {kgf/cm <sup>2</sup> }	2,006 {20,471}
Flexural modulus	ASTM D 785	HRM	65
Hardness	ASTM D 256	J/m {kgfcm/cm}	36.8 {3.75}
Izod impact strength (with notch)	ASTM D 648	°C	107
Deflection temperature under load 1.82 MPa	UL94	File No.E78113	HB
UL incombustibility			

※ The values shown above are typical values, not the standard values.

## Test data

### Thrust load test

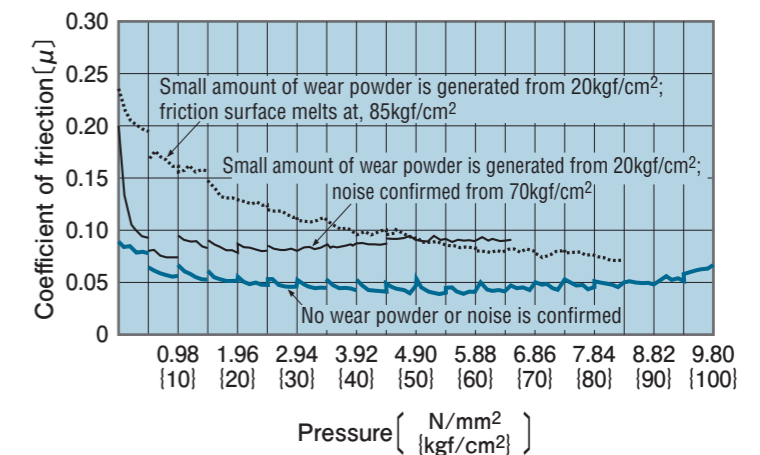
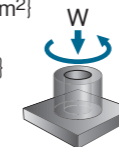
<Testing conditions>

Test sample :

- Lutech GP against Lutech GP
- ..... Company A POM against Company A POM
- Company B POM against Company B POM

Pressure : Load is increased by 0.49N/mm<sup>2</sup> {5.0kgf/cm<sup>2</sup>} every 15 min.

Velocity : 0.0167m/s {1.0m/min}



### Journal rotation test

<Testing conditions>

Bearing dimension : φ10×φ14× l 10

Mating material : POM (M90-44)

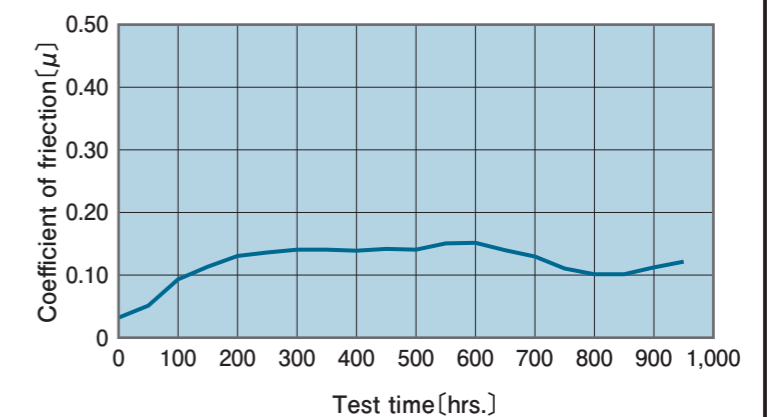
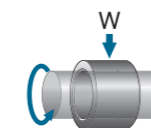
Pressure : 0.07N/mm<sup>2</sup> {0.72kgf/cm<sup>2</sup>}

Velocity : 0.15m/s {9.0m/min}

Test time : 950hrs.

Lubrication : dry

Wear amount : 0.018mm



### Thrust rotation test

<Testing conditions>

Mating material : POM (M90-44)

Pressure : 0.49N/mm<sup>2</sup> {5.0kgf/cm<sup>2</sup>}

Velocity : 0.0167m/s {1.0m/min}

Test time : 72hrs.

Lubrication : dry

Wear amount : Lutech GP : 0.0 / mating material : 0.0mm

Company A POM : 0.020 / mating material : 0.005mm

