

## Sintered bearing Porite SLF

Porite SLF is developed as a "sintered bearing with superior ageing and low friction coefficient".

### [Purpose of development]

Porite SLF was developed for VTR capstan and mobile appliances requiring low current motor and small low torque motors where it is necessary to control the variation of rotation speed.

By using special copper coated iron powder, a copper alloy component having good ageing property is distributed over the hard iron constituent resulting in improved properties of both friction and wear resistance. A large reduction in the ageing time and a large improvement in the friction properties were achieved.

### [Characteristics]

1. A large reduction in the ageing time compared to present sintered bearings is possible.
2. The reduction in friction coefficient makes it possible to reduce the current loss in the motor.
3. A stable friction coefficient with respect to the variation in load can be achieved.
4. A stable rotation speed can be achieved even for low torque motors.
5. By using our recommended lubricant a further reduction in the ageing time and low friction coefficient is possible.
6. Corresponds to ELV, RoHS.

### [Applications]

- Capstan motor for VTR•DVC, etc.
- Small type low torque motors (vibration motor, stepping motor, etc.)

### [Chemical composition and Physical characteristics]

*Chemical composition (weight%)*

Cu	Fe	Zn	Others
Bal	16~31	0.8~4	1Max

#### *Physical characteristics*

Density	: 6.3~7.1	[g/cm <sup>3</sup> ]
Porosity	: 18Min	[Vol%]
Radial strength	: 100 Min	[MPa]
PV value	: 0.8	[MPa · m/s]

### [Bearing properties]

1. Friction coefficient (low speed and high load condition)

Condition

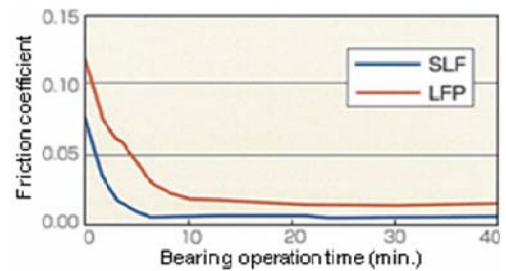
Bearing : ID $\phi$ 2×OD $\phi$ 5×L3mm

Impregnating oil : PSL-31

Shaft : SUS420J2  $\phi$ 2mm

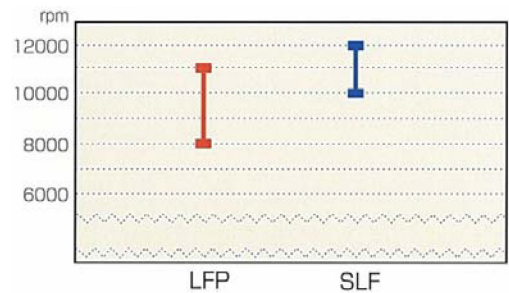
Load : 1.5MPa

Rot. Speed : 100rpm



2. Rot. speed variation of small motor

Condition



### [Lubricating oil]

The impregnating oil may change depending on the various operating conditions, please discuss with technical department personnel.

Overseas:

Taiwan, Singapore, Malaysia, China, Hong Kong, Europe, Thailand, USA

## Porite Corporation

Head office & Factory

121,2-Chome, Nisshin-Cho, Kita-Ku, Saitama-Shi, Saitama Ken, JAPAN, 331-0823

TEL:+81-48-653-2222; FAX:+81-48-660-1292

E-mail:eigy@porite.co.jp