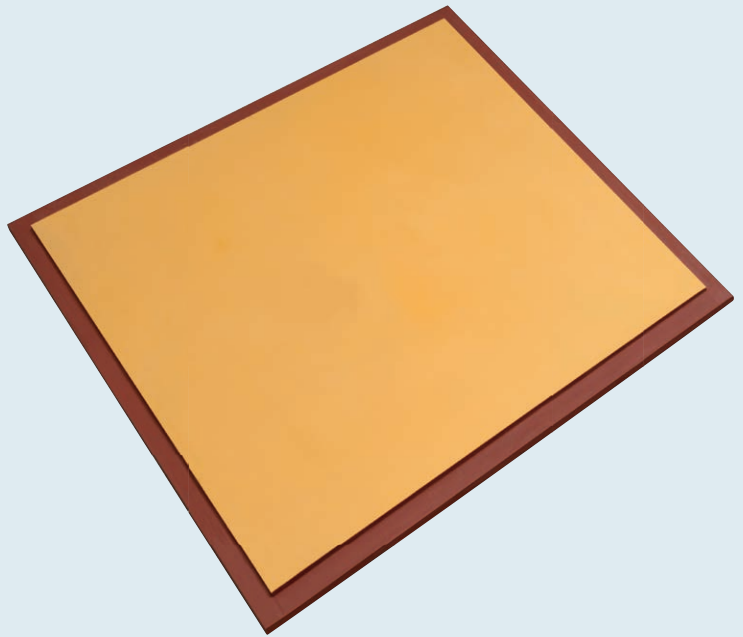




Slide bearing that supports a large load with its small body



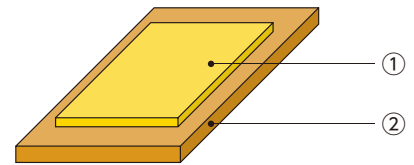
A slide bearing that is made up by joining PILAFLON™ (fluorocarbon polymers containing filler) to metal.

This product can be used in various fields, focusing on earthquake countermeasures for buildings, thermal expansion countermeasures for plants, and equipment transport.

### Features

- Low coefficient of friction** The coefficient of friction ( $\mu$ ) obtained by combining two PILAFLON products or combining PILAFLON with a specially ground stainless steel plate is extremely small.
- Self-lubricating** PILAFLON has self-lubricating capabilities and requires no lubrication. Therefore, PILAFLON can be used for a long period of time.
- Weather resistance** PILAFLON has excellent weather resistance and can be used within a wide range of temperatures.
- Chemical resistance** PILAFLON is chemically inert and does not react to most liquid chemicals.
- Compact** The standard thickness of PILAFLON is 2.4 mm and that of steel plates is 3.2 mm, so the total thickness is only 5.6 mm, which is very compact and makes design easy.

### Standard specification



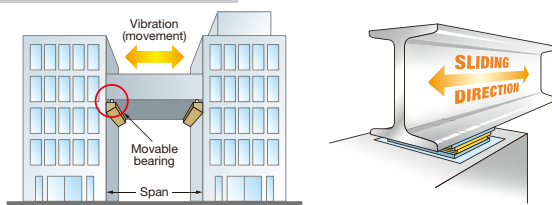
Part name	Material/specification	Remarks
① Bearing	PILAFLON	Thickness: 2.4 mm
② Base metal	SS400	Thickness: 3.2 mm
Painting	Lead/chromium-free anticorrosive paint	JIS K5674

Note: We can also handle materials, thicknesses, and paintings not shown above. For details, please contact us.

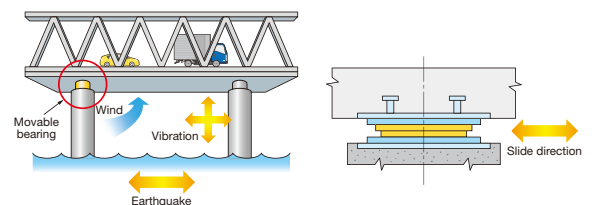
\* PILAFLON is our trademark of molded products made of polytetrafluoroethylene (PTFE, PTFE containing filler).

### Locations of use

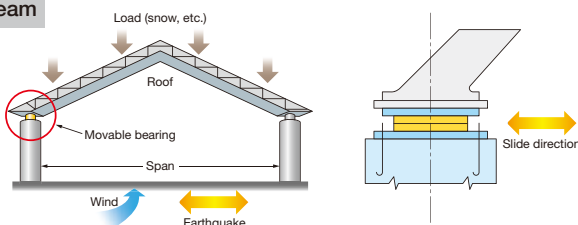
#### Corridor between two buildings



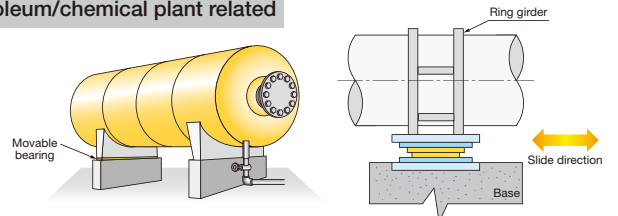
#### Bridge related



#### Roof beam



#### Petroleum/chemical plant related



# PILLAR FLUOROGOLD Slide Bearing

## Types and methods of use

Type	Method of use	Illustration
Standard	<b>Standard specification (1)</b> FLUOROGOLD vs. Specially ground SUS304 plate This type of slide bearing combines a FLUOROGOLD slide bearing, where 2.4-mm-thick PILAFロン is joined to SS400 base metal with a 15-mm lip left, and a specially ground SUS304 plate. This is the most general usage. Surface pressure: 0.5 N/mm <sup>2</sup> to 13.7 N/mm <sup>2</sup> Temperature: -50°C to +200°C	
	<b>Standard specification (2)</b> FLUOROGOLD vs. FLUOROGOLD This type of slide bearing combines two FLUOROGOLD slide bearings, where 2.4-mm-thick PILAFロン is joined to SS400 base metal with a 15-mm lip left. This type is suitable especially when there is not enough plane space in the mounting section. Surface pressure: 0.5 N/mm <sup>2</sup> to 13.7 N/mm <sup>2</sup> Temperature: -50°C to +200°C	
Special handling	Equipped with dust seals This type is FLUOROGOLD of "Standard specification (1)," equipped with dust seals for protection against dust. Use this type in an environment containing a lot of dust. Surface pressure: 0.5 N/mm <sup>2</sup> to 13.7 N/mm <sup>2</sup> Temperature: -45°C to +100°C	
	Back weld type This type uses a similar combination to "Standard specification (2)," except in the event of back weld. When back weld is performed, the thickness of the base metal is 19 mm. Surface pressure: 0.5 N/mm <sup>2</sup> to 13.7 N/mm <sup>2</sup> Temperature: -50°C to +200°C	
	Screw fastening type This type has countersunk screw holes processed for fastening screws. The thickness of the base metal is 4.5 mm. Use this type when field weld cannot be performed because the mating material is a hot-dip galvanized material or another similar material. Surface pressure: 0.5 N/mm <sup>2</sup> to 13.7 N/mm <sup>2</sup> Temperature: -50°C to +200°C	

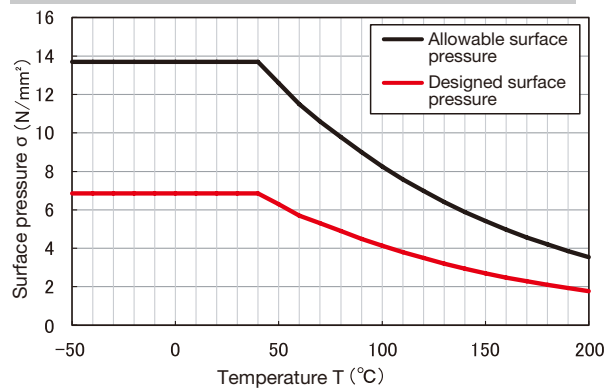
## Performance

### Physical property values of PILAFロン

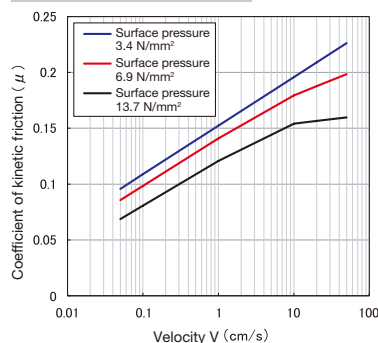
		Item	Cross direction
Mechanical properties	Tensile strength	N/mm <sup>2</sup>	11
	Elongation	%	190
	Hardness (Durometer D)	—	60 to 70
Physical properties	Coefficient of thermal expansion	cm/cm/°C	6.5×10 <sup>-5</sup>
	Specific gravity	—	2.22
	Wear coefficient	$\frac{\text{mm}}{\text{N/mm}^2 \cdot \text{cm} \cdot \text{sec} \cdot \text{hr}}$	11.2×10 <sup>-6</sup>

Note: "Cross direction" means a direction perpendicular to the direction in which the material is molded.

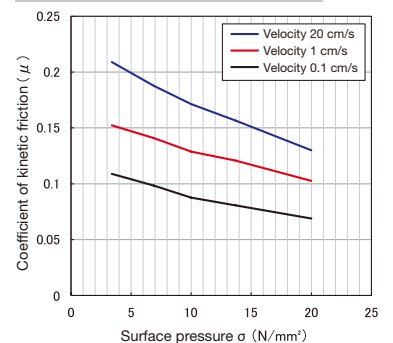
### Relationship between temperature and surface pressure



### Velocity dependence of coefficient of friction



### Surface pressure dependence of coefficient of friction



# PILLAR FLUOROGOLD Slide Bearing

## Product number and model

Product number: **No.4801**

Model: **FC - 10 10 - CS - 15L 200 × 150**

① ② ③ ④

- ① Plate thickness of base metal: Shown to the right
- ② Materials of base metal: CS = SS400, SS = SUS304
- ③ Lip size (mm)
- ④ Plane dimensions of base metal (mm)

Unit: mm

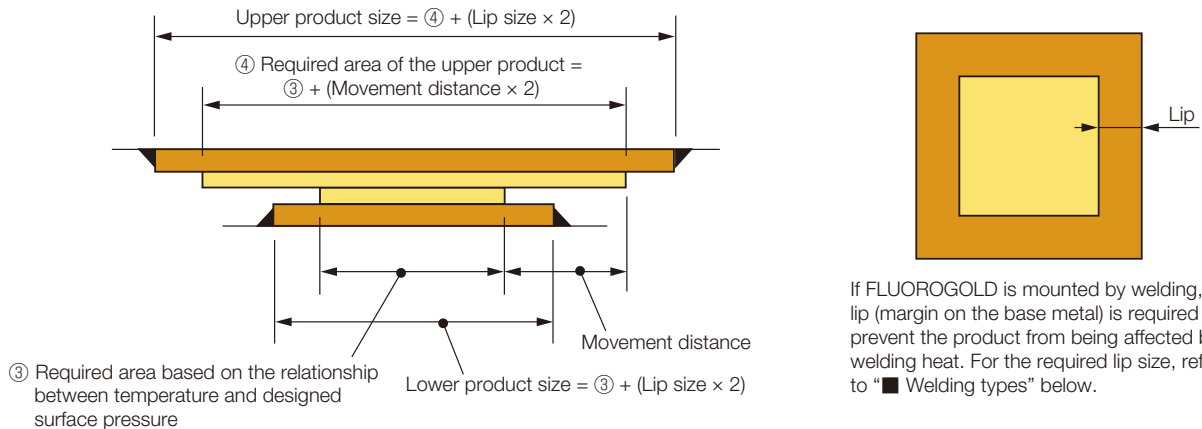
① Code No.	Thickness of base metal	
	SS400	SUS304
10	3.2	3
15	—	4
20	4.5	5
25	6	6
30	9	9
50	12	12
70	16	15
75	19	20
100	25	25

Note: We also handle special materials and thicknesses.

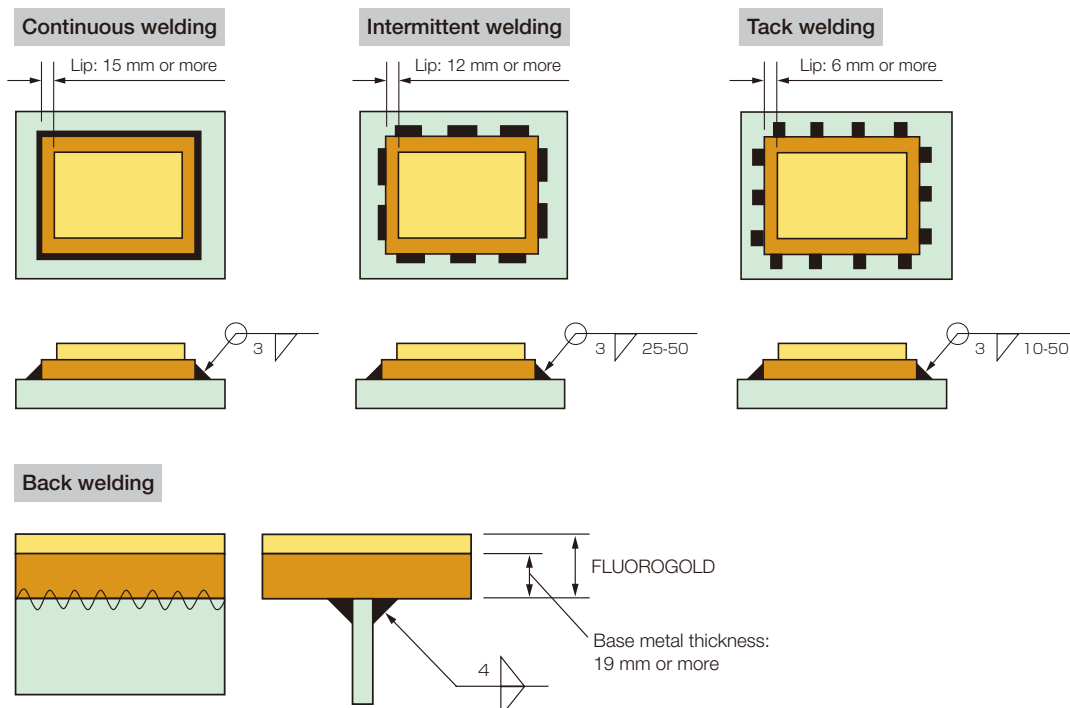
## Design procedure

- ① Calculate the imposed load, temperature, and movement distance of FLUOROGOLD.
- ② Determine how to mount FLUOROGOLD.
- ③ FLUOROGOLD cannot absorb tilting in the vertical direction. Therefore, assuming uniform contact cannot be expected throughout the entire surface, we recommend that FLUOROGOLD be used below the designed surface pressure\* (above safety factor 2).
- ④ Determine the area (dimensions) of the upper PILAFYLON section according to the movement distance.

\* For the designed surface pressure, refer to the graph of the relationship between temperature and surface pressure.



## Welding types



## Precautions for mounting

### Preparation for welding

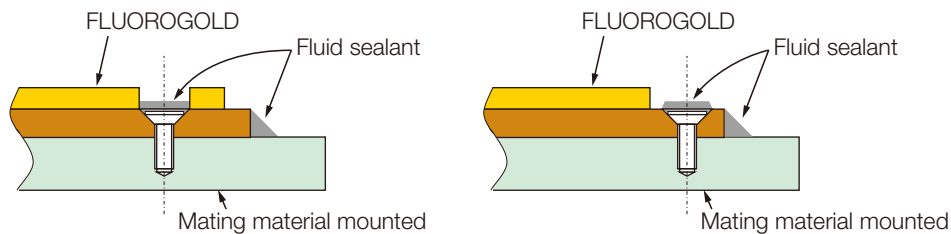
- Clean the surface on which FLUOROGOLD is to be mounted.
- Immediately before welding, remove coatings, moisture, dust, oil, and other foreign objects that affect welding from the FLUOROGOLD part to be welded.

### Welding

- Use a welding rod with a diameter of 3.2 mm or less. The optimum diameter is 2.6 mm.
- To prevent spatter from becoming attached to the sliding surface (bearing surface) during welding, take one of the soft papers packed with FLUOROGOLD, gently moisten it with water, and perform welding while protecting the sliding surface with the paper. (A wet cleaning cloth is also usable.)
- Do not perform gas welding.
- If tack welding or intermittent welding is used, after welding, apply fluid sealant to the outer circumference of FLUOROGOLD to prevent rainwater and other foreign objects from entering the gap between the product and the mating material mounted.

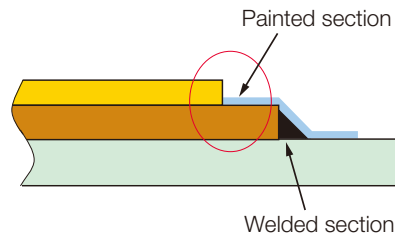
### Fastening screws or bolts

- Take care so that the screw head does not protrude from the sliding surface.
- After mounting, apply fluid sealant to the outer circumference of FLUOROGOLD and the outer circumference of the screw head to prevent rainwater and other foreign objects from entering the gap between the product and the mating material mounted.



### Painting

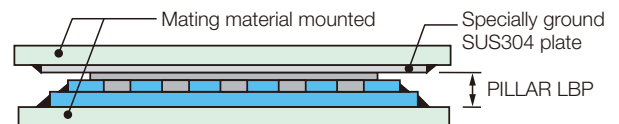
- The steel plate surface is painted with JIS K5674-compliant lead/chromium-free anticorrosive paint.
- Before welding, remove any existing coatings from the FLUOROGOLD part to be welded.
- After mounting, repair the coating and apply a finish painting. In particular, carefully treat the section encircled in the figure below.



## LBP slide bearing

This bearing is configured by joining a 0.8-mm-thick PILAFロン and 0.8-mm-thick perforated stainless steel plate and welding them onto a 3-mm-thick stainless steel plate.

\* If you are interested in this product, please contact us.



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<https://www3.pillar.co.jp/en/product/>



**Safety precaution**

- When using this product, please use correctly and pay sufficient attention to safety.

\* Please understand that this catalog may change without prior notice.  
\* The values shown on this catalog are reference values, not guaranteed values.