

**SLIDING BEARINGS DIVISION** 

HYDRAULIC, ENERGY AND METAL INDUSTRY

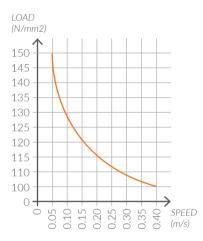
# **PMT-316** Aisi 316L + special coating

## Supporting shell: Aisi 316L

С	0.03%	Mn	1.80%
S P	0.025% 0.03%	Cr Ni	16.70% 10.00%
Si	0.50%	Mo	2.00%

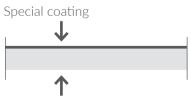
The given values are nominal values from literature.

## **GRAPHIC LOAD / SPEED**



Remarks: for more detailed technical information on load/speed tests, please contact our offices.

## **BEARING SECTION**



Aisi 316L backing (thickness 0.50 - 3.00 mm)

## SLIBITALY

F.lli Paris S.r.l. a socio unico via Marconi 142/144, 24060 Castelli Calepio (BG) ITALY

phone +39 035 442 5511 | fax +39 035 442 5478 info@slibitaly.com

## **SLIDING LAYERS**

Vaporization of the special coating. Multilayer deposit on the surface. Minimum hardness 180 HB, and minimum thickness 15  $\mu\text{m}.$ 

## MECHANICAL PROPERTIES

WORKING TEMPERATURE	min -198°C - max +430 °C
COEFFICIENT OF FRICTION	0.06-0.12
MAX. SPEED	0.40 m/s
MAX. STATIC LOAD	200 N/mm2
MAX. DYNAMIC LOAD (max. speed 0.10 m/s)	150 N/mm2
MAX. DYNAMIC LOAD (max. speed 0.40 m/s)	100 N/mm2

#### SHAFT

For an optimal performance the shaft surface finishing shall be between Ra 0.40 and 1.60  $\mu m$ , depending on the different applications. Hardness 100 – 160 HB5.

#### CHEMICAL RESISTANCE

HYDROCARBONS	Excellent
HYDROCHLORIC ACID (concentrate to 10%)	Excellent
SULFURIC ACID (concentrate to 10%)	Excellent
METHANE	Excellent
OXYGEN	Excellent
SODIUM HYDROXIDE	Excellent
LIQUID NITROGEN	Excellent
SOLVENTS	Excellent

For the housing tolerances table please refer to our website or contact us. We can provide you detailed reports on the compatibility tests, performed by the Laboratory AQM S.r.l. in Brescia.

**Note:** The informaton in this data-sheet is to be considered reliable, but conditons and methods of use, which are beyond our control, may modify the results. The informaton and data contained in this data-sheet are the result of a long and detailed research, however F.lli Paris S.r.l. cannot be considered responsible for any incorrect or incomplete data. Owing to the constant development of the products, we reserve the right to make changes to them without prior notice.

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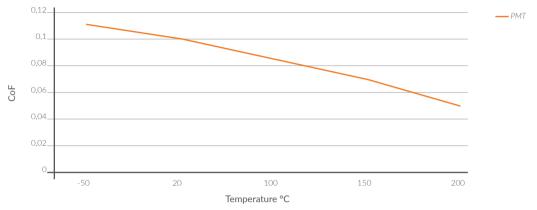
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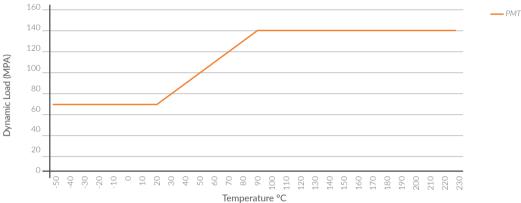
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## **COEFFICIENT OF FRICTION - PMT**



## MAX. DYNAMIC LOAD - PMT

**INTERNAL SURFACE WEAR - PMT** 



#### 0,03\_ TEMP. AMB (70 MPA) 100°C (140 MPA) 150°C (140 MPA) 0,025 40 MPA MDA 002 Wear (mm) 0,015 001 0,005. 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 5 10 15 20 25 Cycles

The tests were performed in the Slib Italy laboratory with a Test Bench for the simulation of ball valves

- Types of tested bushes: TX-316, TF-316 and PMT-316 Shaft roughness of the Test Bench: 0.5 0.8 Ra Shaft hardness of the Test Bench : 1100 Vickers .

- Shaft rotation at 90° with load applied from 0° to 30° and backwars from 30° to 0°  $\,$ .
- Rotation speed: 0.083 m/s
- Tests performed with temperatures between -50°C to . +200°C

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