



SLIDING BEARINGS DIVISION

HYDRAULIC, ENERGY AND METAL INDUSTRY

TF-625S

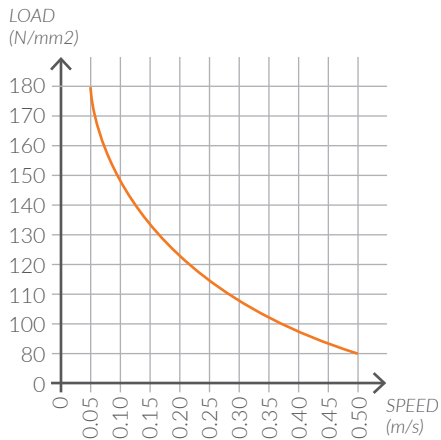
Inconel 625 + sintering + modified filled PTFE film

Supporting shell: Inconel 625

C	0.10%	Co	1.00%
Mn	0.05%	Ta + Nb	3.15 ÷ 4.15%
Cr	20 ÷ 23%	Ni	Rest
Mo	8 ÷ 10%		

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

Filled PTFE modified (thickness 200 - 220 µm)



Inconel 625 backing (thickness 0.50 - 3.00 mm)

SLIDING LAYERS

Filled PTFE modified film, colour black, thickness 200-220 µm, heavy load capacity and self-lubricating under dry operation.

SINTERING

Special adhesive between the filled PTFE modified film and the backing steel, thickness 60 µm.

MECHANICAL PROPERTIES

WORKING TEMPERATURE	min -190°C - max +260 °C
COEFFICIENT OF FRICTION	0.03-0.20
MAX. SPEED	0.50 m/s
MAX. STATIC LOAD	250 N/mm ²
MAX. DYNAMIC LOAD (max. speed 0.05 m/s)	180 N/mm ²
MAX. DYNAMIC LOAD (max. speed 0.50 m/s)	80 N/mm ²

SHAFT

For an optimal performance the shaft surface finishing shall be between Ra 0.40 and 1.60 µm, depending on the different applications. Hardness 80 - 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	Good

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.

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

slibitaly.com

Note: The information in this data-sheet is to be considered reliable, but conditions and methods of use, which are beyond our control, may modify the results. The information 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.

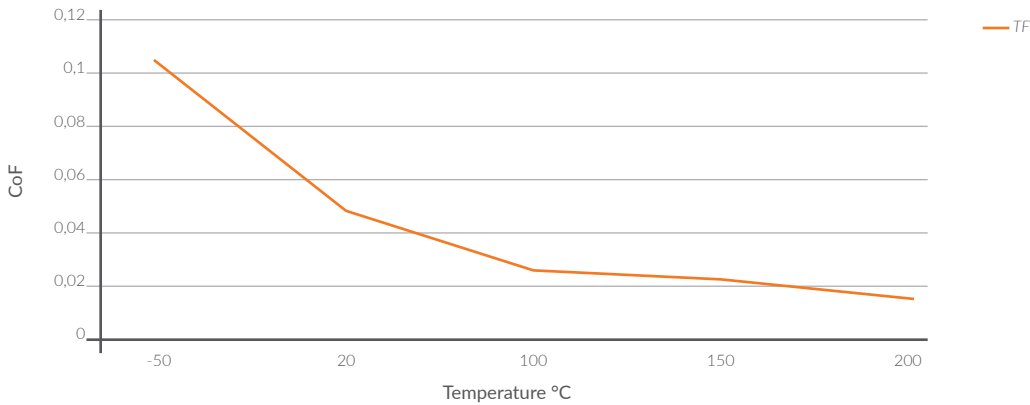
Data sheet n° SBST005 - Rev. 27/03/2019



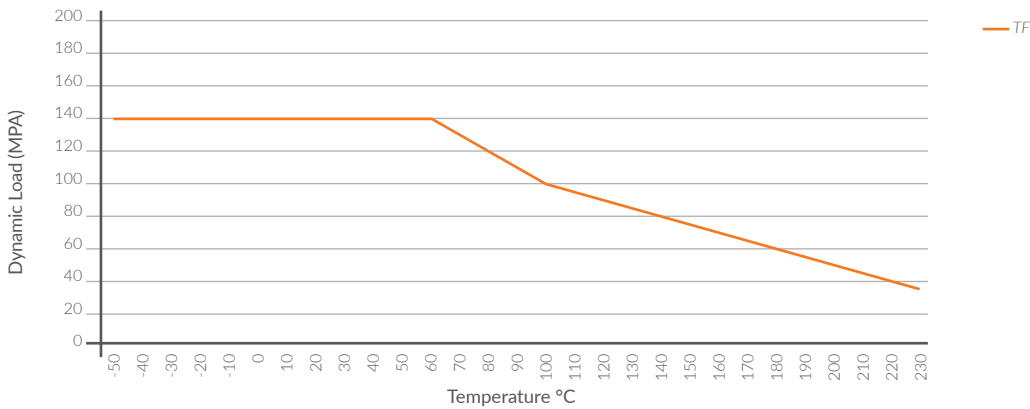
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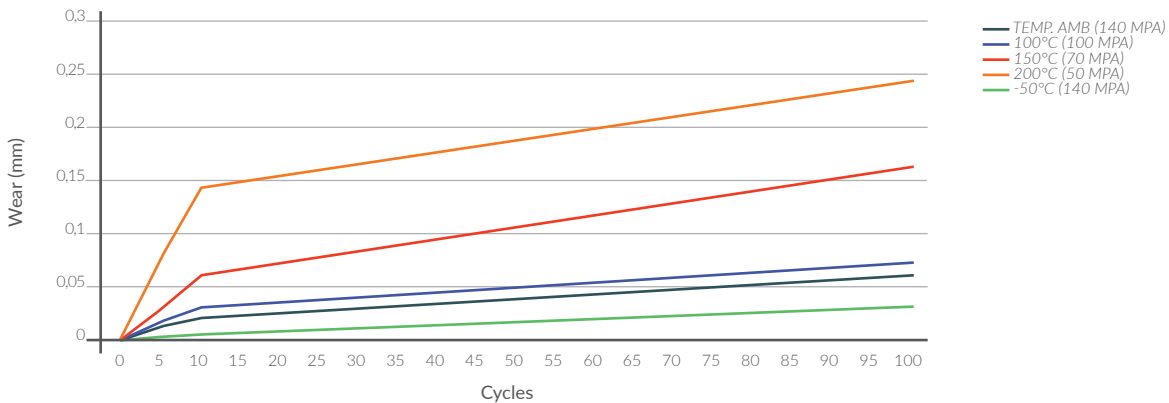
COEFFICIENT OF FRICTION - TF



MAX. DYNAMIC LOAD - TF



INTERNAL SURFACE WEAR - TF



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