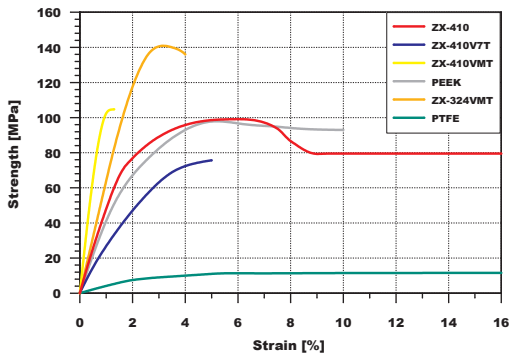
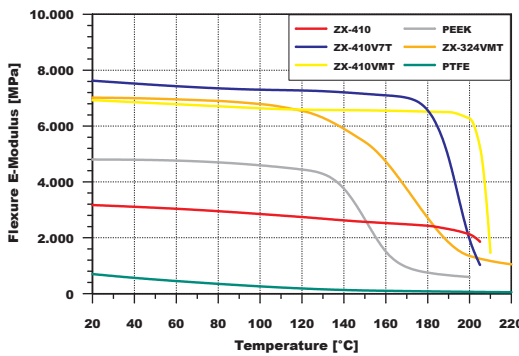


Stress/Strain (ISO 527)



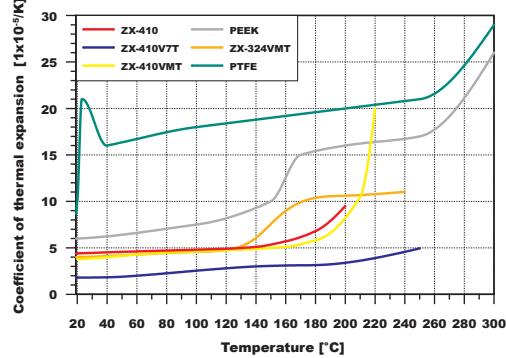
ZX-410 has got the same strength, yield stress and elongation as the natural PEEK, but a much higher (many times over) elongation at break.

Flexural E-Modulus (ISO 178)



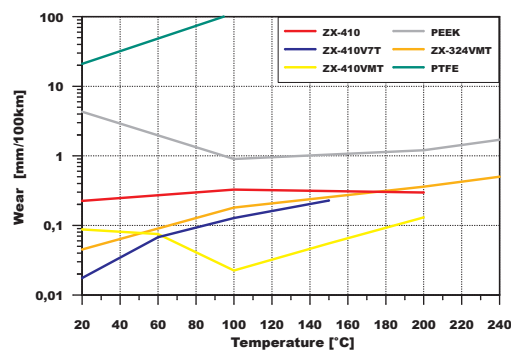
ZX-410 loses strength, first at 50°C higher temperature than PEEK (natural). ZX-410V7T is stiffer than the fibre reinforced PEEK.

Thermal expansion coefficient (ISO E830)



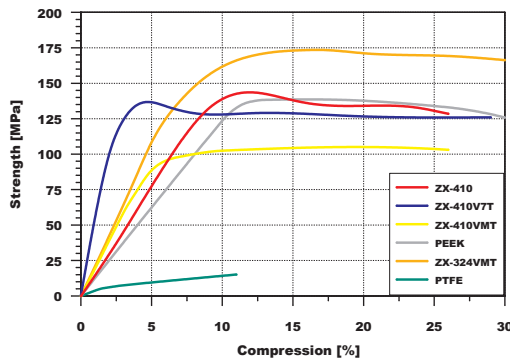
The thermal expansion coefficient of the ZX-410V7T is up to 140°C similar to the aluminium's one. All ZX-410 types are more dimensionally stable than PEEK.

Wear (PVLAB11)*



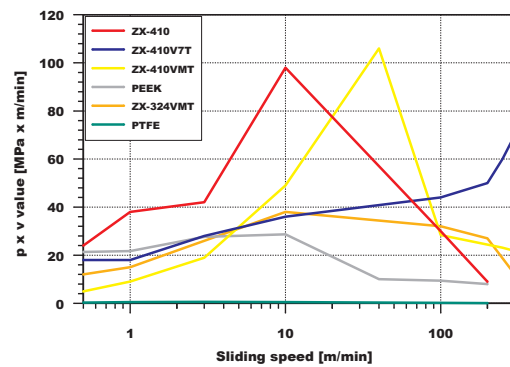
The wear resistance of all the types of ZX-410 is better than the PEEK. ZX-410V7T has got, up to 150°C, a extreme good value of wear resistance.

Strength/Compression (ISO 604)



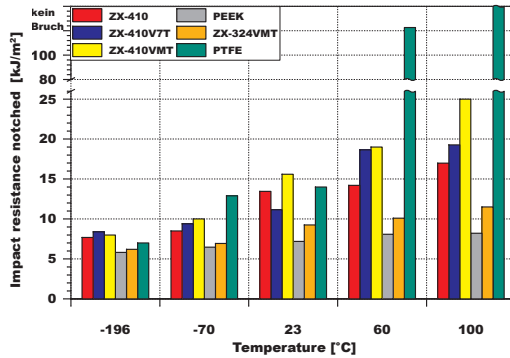
ZX-410 has got a higher compressive strength than PEEK. The fibre-reinforced ZX-410V7T is stiffer than fibre-reinforced PEEK when subjected to compressive stress.

Admissible PV-value (PVLAB07)*



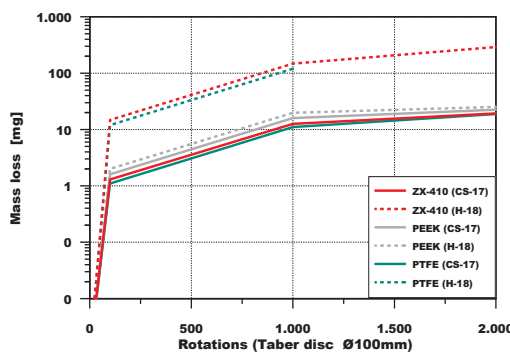
The ZX-410 PV-value is considerably (max. 300%) higher than PEEK (natural). ZX-410V7T has got over 60 m/min a high PV-value.

Impact resistance notched (ISO 179/1eA)



The Charpy v-notch test, of the ZX-410, is in the same level or in a better one than the PEEK (natural).

Abrasive Wear (ISO 5470-1)



In case of mild abrasive particles (CS-17), ZX-410 has got a very good wear resistance, even better than PEEK.

Substitution examples

Which material can replace the ZX-410?

Bronze / Sintered bronze
up to 170°C, taking into account the strength required, replaceable.

Targets: cost reduction, friction and wear reduction, dry running condition, corrosion prevention, weight reduction.

PEEK

taking into account the temperature and the chemical resistance required, replaceable.

Targets: cost reduction, wear reduction, increment of the PV-value, improvement of the mechanical properties, dimensional stability and improvement of the fire behaviour.

Aluminium

taking into account the strength required, replaceable.

Targets: cost reduction through injection moulding. A cost reduction, also with tight tolerances, is possible with the material ZX-410V7T as well. Dry running condition, friction and wear reduction, increment of the resistance to weathering and chemicals.

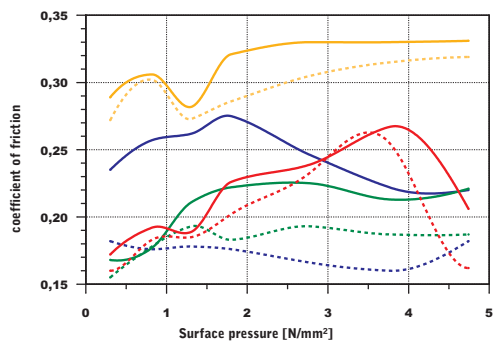
* Information about factory standards can be found on the last page

ZX-410 family - Coefficient of friction*

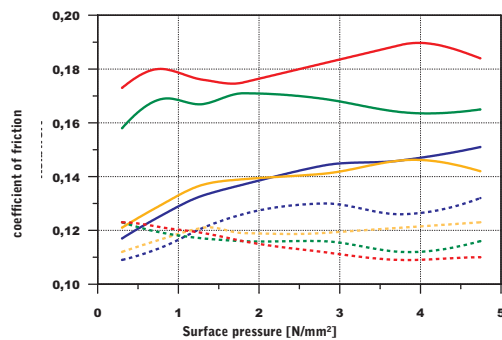
ZX-410

ZX-410V7T

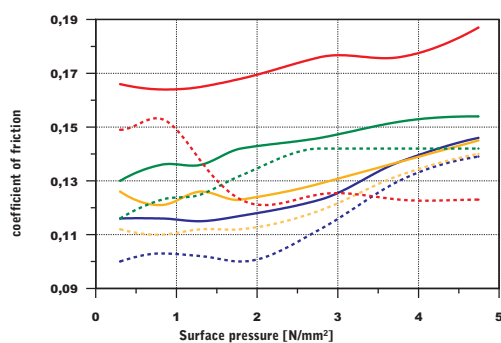
Dry running



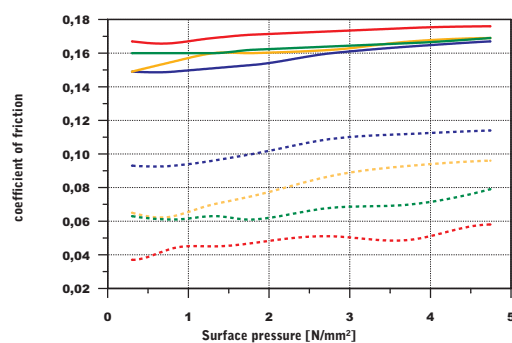
Dry running



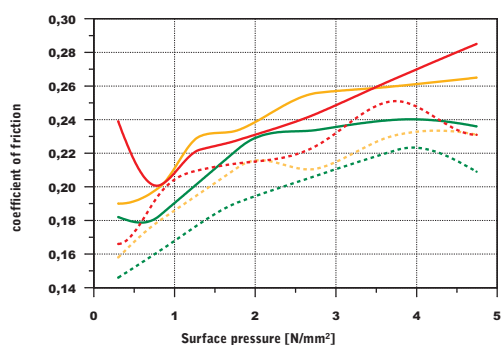
Oil lubrication



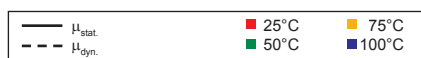
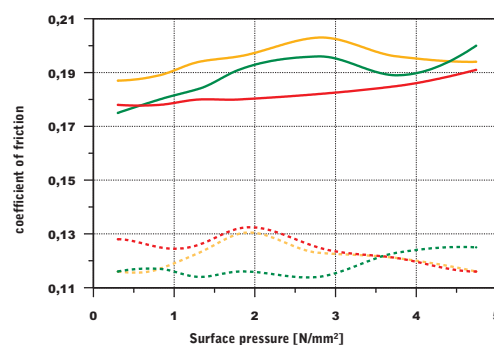
Oil lubrication



Water lubrication



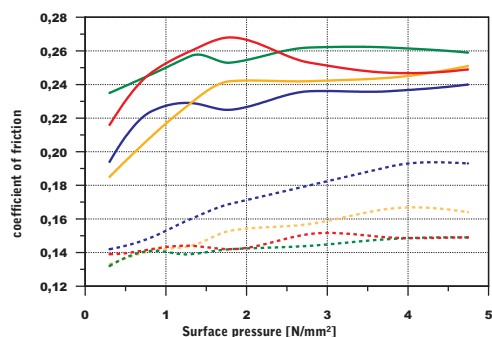
Water lubrication



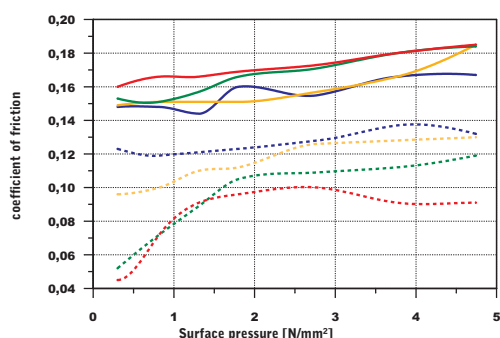
* Determined to factory standard. Information about the test parameters can be found on the last page

ZX-410VMT

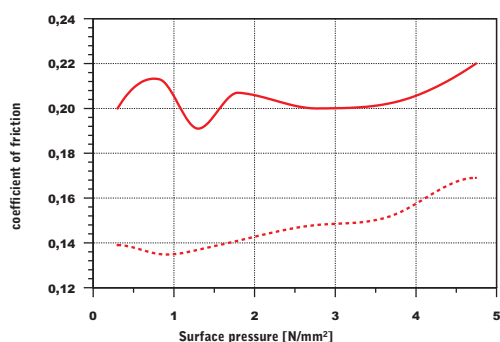
Dry running



Oil lubrication



Water lubrication



* Determined to factory standard. Information about the test parameters can be found on the last page

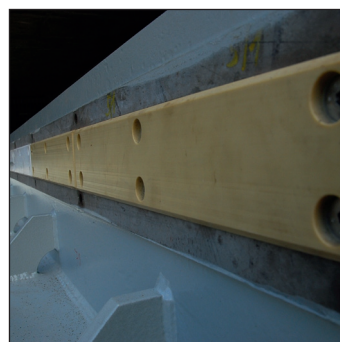
Examples of usage



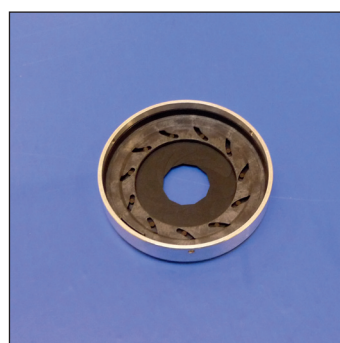
In the field of stroke kinematics of hydraulic platforms, bushings, made of ZX-410, tolerate surface pressures up to 125 MPa and at the same time, edges pressure and impacts.



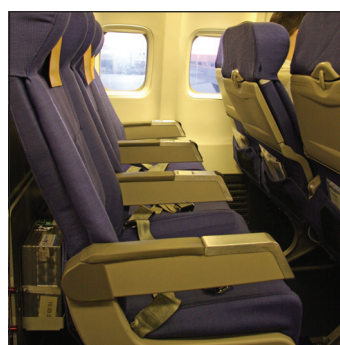
A thrust bearing used in oxygen fittings, made of ZX-410, tolerate a long-term Hertzian contact stress up to 500MPa.



ZX-410, thanks to the long-term stability, is used as bearing application for lock gates, in water and not.



ZX-410V7T, thanks to the high wear resistance and the dimensional stability, is used as iris diaphragm in high-tech cameras.



Plain bearings made of ZX-410 are used in the aircraft backrest seats of the passengers.