



PEL[®] bushings

HIGH RESISTANCE TO WEAR AND SEIZURE IN SEVERE WORKING CONDITIONS: HIGH PRESSURE, ABRASION, SHOCKS AND CORROSION

PEL[®] bushings have an excellent resistance to wear and seizure thanks to the combination of a duplex surface treatment and a special surface topography.

Examples of applications

Telescopic equipments – Reel clamps – Casting ladle – Excavators – Loaders – Crushers – Hydraulic breakers – Tractors front axle – Bush cutter pillar arms – Garbage collection trucks – Iron and steel works – Cement industry – etc...

Surface characteristics

The surface topography of the PEL[®] bushing provides large grease reservoirs distributed homogeneously on the surface and enables the removal of abrasive particles from the contact area.

The duplex treatment provides high surface hardness and excellent resistance to abrasive wear, seizure and corrosion.

Conditions of use

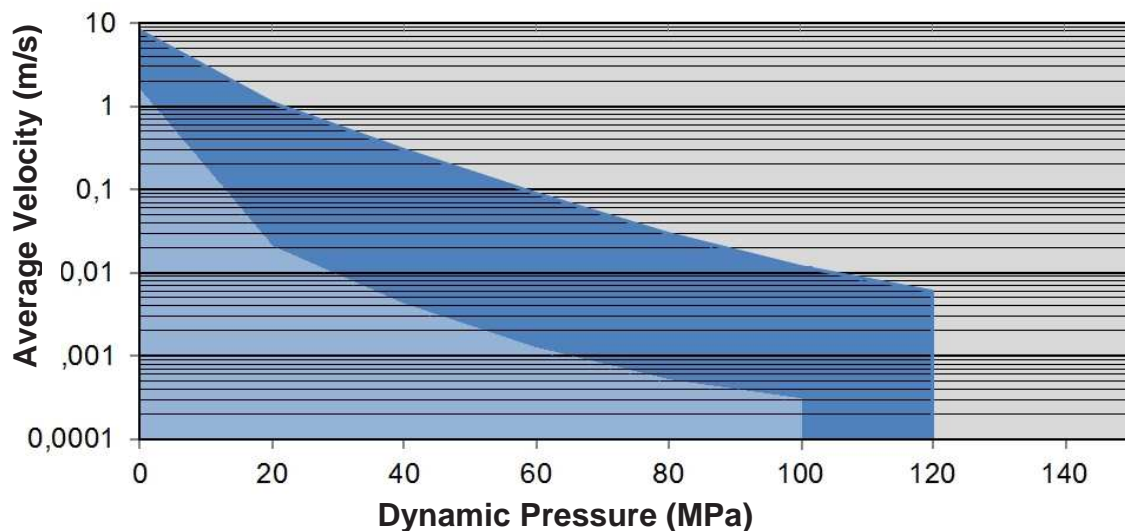
Static pressure max (MPa)	300
Dynamic pressure max (MPa)	100
Speed (m/s)	1,5
PV factor (MPa.m/s)	See curve next page
Max Temp (°C)	250
Lubrication	greased
Greasing intervals	Up to 50 h

Standard tolerances

Bushing inner diameter	H9
Bushing outer diameter	p6
Housing	H7
Shaft tolerances	f7
Shaft roughness	Ra < 0.8
Shaft hardness	> 56 HRC

- Nitrocarburising specialist, owner of QPQ[®], TENIFER[®], ARCOR[®], SURSULF[®], TUFFTRIDE[®]...
- Low friction, anti-corrosion coatings: lamellar zinc, PTFE & MoS₂ coatings...
- PVD & CVD coatings expert: DLC (aC:H, TaC), hard coatings (CrN, TiN,...): CERTESS[®]
- Anti-seizure treatment: STANAL[®] 400 (for stainless steel), DELSUN[®] (for bronze and copper alloys)

PV curve



NB : Curve obtained from test bench results

Normal applications (with marginal lubrication)

Possible applications after validation tests (with regular lubrication)

Assembly instructions

PEL[®] bushings are best assembled by press fitting or by nitrogen mounting. (Other assembly techniques can also be used. If necessary, please contact HEF DURFERRIT prior to use.)

Available basic forms

Different forms are available with PEL[®] BH technology: Cylindrical or flanged bushings, sliding plates, thrust washers...

Customizable bushings and products

PEL[®] bushings may be customized to answer your specific needs.

Mating shaft

For optimal performances, special HEF DURFERRIT shafts are available from HEF: PEL[®] ST, PEL[®] STC...

Large testing capabilities and strong R&D

- 60 tribologists and R&D engineers
- More than 30 test benches, customizable tribometers
- Studies in special environment: Cryogenic, high temperature, water, oil, grease, dust ...
- More than 2 500 studies in various industries
- More than 600 patents



The PEL[®] bushing is based on our experience in the field of tribology. Therefore, it should be tested and validated in your real working conditions before being adopted for permanent use.



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You have a friction problem? HEF DURFERRIT has the solution!