



H-LINER[®] S bushings

SELF-LUBRICATING POLYMER BUSHINGS

These bushings, manufactured from a friction liner applied on a glass fiber structure, have excellent friction properties and improved wear resistance without external lubrication even under high loads.

Examples of applications

Trucks cranes – Strip-still – Tillage equipment – Dozer blades – Elevated cabin – Front axles – Lifting hook – Trailers – Sterilizer – Chains – Harvesters – Lifting platform – Car carrier – Airport ground equipment – Scissor lift – Tailgate – etc...

Product characteristics

The woven material of H-Liner[®] S is composed of a friction layer backed on a high mechanical resistance composite structure. The technical characteristics are much higher than extruded plastics and don't require any greasing. The H-Liner[®] S1 is an upgrade of the H-Liner[®] S with better tribological properties.

Conditions of use

	H-LINER [®] S	H-LINER [®] S1
Static pressure max (MPa)	400	400
Dynamic pressure max (MPa)	140	140
Speed (m/s)	0,5	0,5
Max PV factor (MPa.m/s)	1	1
Dry friction coefficient	0.05 – 0.1	0.05 – 0.1
Temperature range (°C)	-40°C to 130°C	-40°C to 160°C
Thermal expansion coefficient (/K)	7 E ⁻⁶	7 E ⁻⁶
Water absorption (24h)	0.16%	0.16%

Standard tolerances

Housing	H7 /H8
Shaft tolerances	h7/h8
Optimal shaft roughness	Ra < 0.2 – 0.6

- 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)

Advantages of H-Liner® S

- Maintenance free, self-lubricating
- High loads
- Weight reduction
- Noise reduction

Assembly instructions

H-Liner® S bushings are best assembled by press fitting or by nitrogen mounting. Other assembly techniques can also be used, (ex: bonding...). For further information, please contact HEF DURFERRIT prior to use.

Available basic forms

Different forms are available with H-Liner® S technology: Cylindrical or flanged bushings, sliding plates, spherical plain bearings, thrust washers...

Mating shaft

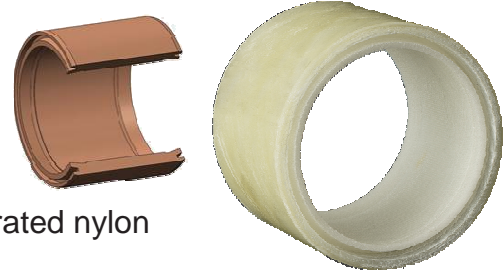
H-Liner® S were developed to run without lubrication. Therefore, counter shafts should be treated against corrosion.

For optimal performances, special HEF DURFERRIT shafts are available from HEF: PEL® OX, ...

A specific version for high temperature (up to 280°C) and continuous rotation is also available with the H-Liner® SHT

H-Liner® S for abrasion resistance

- H-Liner® with lips: Patented bushings with integrated seals
- Abrasion resistance higher than standard composite, even without integrated nylon seals

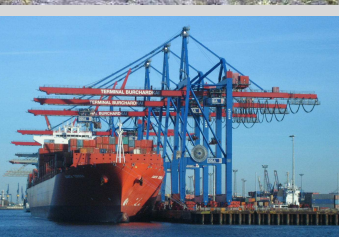


Large testing capabilities and strong R&D

- 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 H-Liner® S 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!