



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 160°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

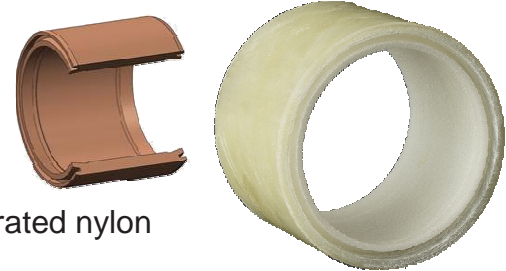
H-Liner® S were developed to run without lubrication. Therefore, counter shafts should be treated against corrosion.

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

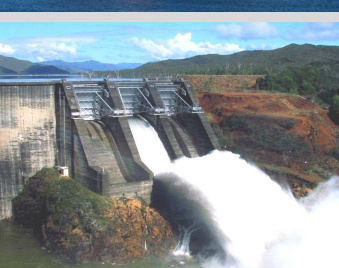


Large testing capabilities and strong R&D

- 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.



HEF DURFERRIT HEADQUARTER
Rue Benoît Fourneyron - ZI Sud
42166 Andrézieux Bouthéon
FRANCE
Tél. +33 (0)4 77 55 52 22
bushings@hef.fr

HEF DURFERRIT GERMANY
Industriestrasse 3
D - 68169 MANNHEIM
GERMANY
Tel: +49 621 32 224 0
info@hef-gleitlager.de

HEF USA
2015 Progress Drive
Springfield
Ohio 45505
USA
Tel: +1 (937) 323 2556
sales@hefusa.net

HEF DURFERRIT JAPAN
Sankyo Bldg 6F,
Shin-Yokohama 3-16-14
Kohoku-Ku, Yokohama-shi
Kanagawa-ken 222-0033
JAPAN
Tel: +81 45 474 2844
sales.japan@hef.fr

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