

H-LINER® M

Composite range

SELF-LUBRICATING COMPOSITE COMPONENTS

Thanks to a special structure, this technology made from composite materials ensures excellent friction properties and increased wear resistance without external lubrication, even under heavy loads.

Advantages of H-Liner® M:

- Maintenance-free
- High load capacity
- Low water absorption
- Lightweight (6x lighter than copper alloys)
- Misalignment resistance

Example of applications:



Truck crane



Railway



Materials handling



Hydropower



Railway brakes



Operating conditions

Max. static pressure (MPa)	350 MPa
Max. dynamic pressure (MPa)	80 MPa
Maximum speed (m/s)	0,5 m/s
Max. PV factor (MPa.m/s)	1 MPa,m/s
Coefficient of friction, dry	0,05 to 0,1
Temperature range (°C)	-40°C à 130°C
Coefficient of thermal expansion (/K)	4 E ⁻⁶ /K
Water absorption rate	0,07% after 24h
Assembly instructions	Press nitrogen or bonded assembly. If something else, please contact us

Housing

Standard tolerance	H7 or H8*
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Shaft

Standard tolerance	h7 or h8*
Optimum roughness	0,2 to 0,6 µm
Recommended surface treatments	Corrosion resistance
OptimumHEF technology	PEL® OX, ARCOR treatment, etc.

Components available in this technology

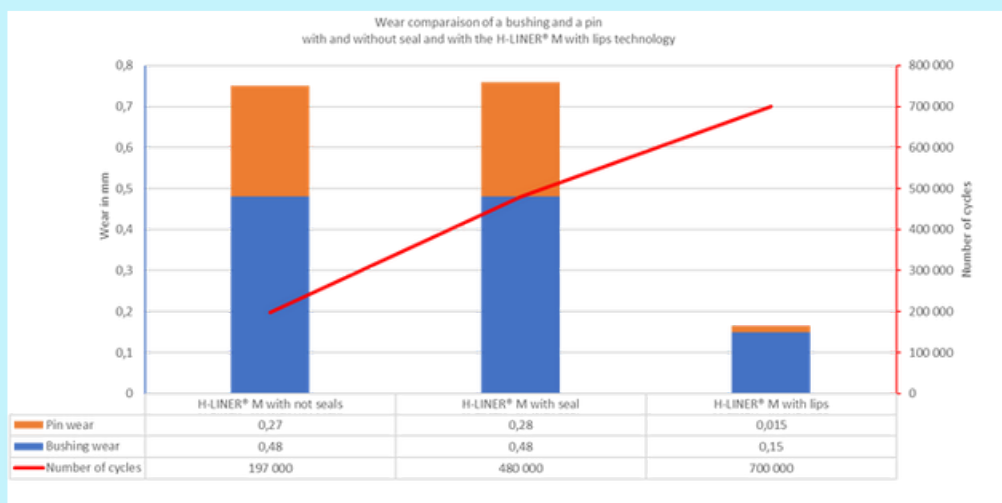
Bushings, flanged bushings, spherical plain bearings, slide pads, washers, etc.

*Depending on the severity of your application conditions, these recommendations may change. Contact us before use



The H-Liner[®] M technology for abrasion resistance:

- **H-Liner[®] with lips:** patented bushings with integrated seals
- Greater abrasion resistance than standard composite materials, even without integrated nylon seals.
- The H-liner M is available with integrated lip seals. This solution allows to extend significantly the lifetime of joints working in abrasive surrounding. The wear is reduced by 2,5 compared with solution protected by rubber seals.



Extensive testing and R&D capacities

- 60 tribologists and R&D engineers
- More than 30 test benches, customisable tribometers
- Studies in special environments: Cryogenic, high-temperature, water, oil, grease, dust, etc.
- Over 3,000 studies conducted in various industries
- Over 200 patents

H-Liner[®] M TECHNOLOGY IS A HEF WORLD PATENT - HEF IS THE ONLY AUTHORIZED MANUFACTURER H-Liner[®] M technology is the result of studies and research carried out by HEF's tribology specialists. However, it must be tested and validated under your specific operating conditions to ensure proper suitability for all your parameters before it is definitively adopted.

Contact

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