H-LINER® M BUSHING

SELF LUBRICATED SLIDING BUSHINGS
Thanks to a special woven structure, these sliding bearings made of composite material warranty excellent friction properties and improved wear resistance without external lubrication even on high loads.

Surface characteristics
H-LINER® M products are manufactured with an homogeneous woven sliding polymer, on the complete wall thickness. Mechanical characteristics are near from brass and these products don't require any lubrication.

This product is completely remachinable and also available as flanged bushings, washers and slides. They are also widely used when low water absorption or misalignement resistance are required.

Advantages of H-LINER® M:
- Maintenance free
- Enable machining of pieces with complex shape
- Low water absorption
- Low weight
- Misalignement resistance properties

Conditions of use

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic contact pressure (max in Mpa)</td>
<td>80</td>
</tr>
<tr>
<td>Static contact pressure (max in Mpa)</td>
<td>350</td>
</tr>
<tr>
<td>Sliding speed (max in m/s)</td>
<td>0,5</td>
</tr>
<tr>
<td>Temperature max</td>
<td>- 40 +130 °C</td>
</tr>
<tr>
<td></td>
<td>- 40 + 250°F</td>
</tr>
<tr>
<td>Thermal expansion coefficient (°/K)</td>
<td>4 E-5</td>
</tr>
<tr>
<td>Water absorption (24h)</td>
<td>0.10 %</td>
</tr>
</tbody>
</table>

Standard Tolerances

<table>
<thead>
<tr>
<th>Component</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>H7- H8</td>
</tr>
<tr>
<td>Pins</td>
<td>R7- R8</td>
</tr>
</tbody>
</table>
Applications:
- Off-shore
- Handling equipment
  - Harbor equipments
- Agriculture
  - Rear and front hitches
  - Harvester
- Food industry
- Hydro power
  - Wagon gates
  - Butterfly gates
  - Turbines (Wicket gate, Operating Ring, Actuator)
- Railway industry
  - Bogie
  - Brake rigging
  - Coupling
  - Car step
  - Air spring

Mating shafts
For optimal performance we recommend to use grinded pin with a roughness lower than Ra 0,4 μm and hardness higher than 400 HB. HEF DURFERRIT PEL® OX pin are particularly appropriated to work against H-LINER® bushings.

Assembly instructions
H-LINER® M bushings are best assembled by press fitting or by nitrogen mounting. (Other assembly techniques can also be used, example: bonding). For further information, please contact HEF Durferrit prior to use.

Available basic forms
Different forms are available with H-LINER® M technology: bushings, flanged bushings, spherical plain bearings, sliding plates, washers, nuts, gears.
HEF has developed different solutions to fit customer specifications:
- sealing solution against abrasion
- component for food industry...

This solution 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.