### Metal Sliding Materials

#### SOBS (Oilless Spherical Bush)

- **Alignment**
  - H7 D1
  - 1.9
  - 2018/05/02 13:28

- **Material**
  - Inner Ring: Material
  - Outer Ring: Copper alloy (SO-2) Solid lubricant (GR-1) S45C Tempered Non-electrolytic nickel plating

#### Operation Range

<table>
<thead>
<tr>
<th>Lubricant Type</th>
<th>Lubricating Condition</th>
<th>Environment Condition</th>
<th>Max. Allowable Load [kN]</th>
<th>Max. Allowable PV value [N/m]$\text{m}^2$/min</th>
<th>Operation/Range Temperature [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>GR-1</td>
<td>No lubrication</td>
<td>Air</td>
<td>15</td>
<td>150</td>
<td>−20 +60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atmosphere</td>
<td>100</td>
<td>150</td>
<td>−50 +100</td>
</tr>
</tbody>
</table>

#### Physical Properties

- **Specific Gravity**: 7.9
- **Hardness HB**: 210 or more
- **Elongation %**: 12 or more
- **Tensile Strength [N/mm²]**: 755 or more
- **Linear Expansion Coefficient [x10⁻⁶/°C]**: 1.9

#### For use (fixing direction)

- **Side insertion Type**
  - Install the bushing so that the loading direction may be perpendicular to the spherical insertion groove.

- **Split bushing Type**
  - Install the bushing so that the loading direction may be perpendicular to the split surface.

#### Assembly type of spherical bushing

- SOBS015-090 (Side insertion type)

- SOBS 100—(Split Bushing)

---

### Copper Alloy Spherical Type

#### SOBS 50SP2

- **Catalog No.**
  - Nominal: 050

- **For use (fixing method)**
  - Regular lubrication with grease nipple can improve wear resistance

- **Interference**
  - Grease nipple

- **Adhesion**
  - Effective by using together with adhesive

- **Fixing Bolt**
  - Non-loosening plate

- We are ready to accept requests or orders for special parts.