| Requirements | Influencing factor | Solution |
|---|---|---|
| Load capacity ↑<br>(specific load per unit area) | Strength and hot hardness, film thickness ↓ | Steel backing, hard Al and Cu alloy, sputter bearing |
| Running-in behavior | Welding tendency, Young's-modulus, structure, hot hardness | Soft Pb, Sn and Al, sliding layer alloy |
| Adaptability | Young's-modulus and yield point | Plastic deformation of bearing material or running-in layer |
| Dry running properties<br>(seizing disposition) | Welding tendency, Young's-modulus, structure, hot hardness | Hard Al and Cu alloy with<br>Pb and Sn content, groove bearing |
| Wear resistance and fatigue | Hardness, ductility and welding tendency | Hard Al and Cu alloy, groove or sputter bearing |
| Embedding capability | Young's-modulus and hot hardness | Soft Pb, Sn and Al sliding layer alloy |
| Running speed ↑ | Hardness difference between bearing and shaft ↑ | 1:3 up to 1:10 |
| Corrosion resistance | Bearing material | Sn alloy or flash |