BALL VALVE SEAT
# Ball Valve Seat

## BALL VALVE SEAT

<table>
<thead>
<tr>
<th>TYPE</th>
<th>PTFE</th>
<th>HYPATITE® PTFE</th>
<th>C/F PTFE</th>
<th>FILLTITE® (1H)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Polytetrafluoroethylene resin</td>
<td>Polytetrafluoroethylene resin</td>
<td>Carbon fiber filled Polytetrafluoroethylene resin</td>
<td>Polytetrafluoroethylene resin with carbon based special filler</td>
</tr>
</tbody>
</table>

- **PTFE seats** possess high chemical resistance and excellent sealing performance.
- **HYPATITE® seats** are made of modified PTFE. *HYPATITE® seats* have excellent resistance to creep and compression and abrasion services, featuring high elasticity and resilience. **HYPATITE® seats** also have good chemical resistance, so they can be used for a wider range of chemicals as PTFE.
- **HYPATITE® PTFE** is a registered trademark of KITZ Corporation.
- **This ball seat is made of PTFE reinforced with carbon.** The seat has high mechanical strength and abrasion resistance.
- **FILLTITE® seats** can be used at a temperature as high as 300°C, the highest service temperature among PTFE based ball seats. The ball seats are used in Class JIS 10K - 20K / ASME Class 150 - 300 ductile iron, stainless steel and carbon steel floating ball valves.
- **FILLTITE® PTFE** seats are made of hard carbon with excellent heat resistance. Maximum service temperature is 500°C. The leakage may increase when valves are exposed to an oxidized service at a higher temperature than 450°C for extended periods.

### Cartridge Ball Valve

- The ball seats are used in bronze, brass and cast iron floating ball valves.
- **Maximum Service Temperature:** 200°C

### Ball Valve

- The ball seats are used in Class JIS 10K - 20K / ASME Class 150 - 300 ductile iron, stainless steel and carbon steel floating ball valves.
- **Maximum Service Temperature:** 270°C

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## BALL VALVE SEAT

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CARBOTITE (3H)</th>
<th>Metal seat (5H)</th>
<th>Metal seat (6H)</th>
<th>SWELLESS® seat</th>
<th>PEEK seat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hard carbon</td>
<td>Hard faced metal seat</td>
<td>Hard faced metal seat</td>
<td></td>
<td>Polyetheretherketone resin</td>
</tr>
</tbody>
</table>

- **CARBOTITE seats** are made of hard carbon with excellent heat resistance. Maximum service temperature is 500°C. The leakage may increase when valves are exposed to an oxidized service at a higher temperature than 450°C for extended periods.
- **The surface of the 316 stainless steel seats** is hard faced by thermal-spraying with nickel and chrome alloys, which enables valves to be used at a temperature of 500°C.
- **The seat has high abrasion resistance so that it can handle fluids including foreign particles.**
- **The ball and ball seat surfaces** are hard faced by thermal-spraying with nickel and chrome alloys, which enables valves to be used at a temperature of 500°C.
- **Valves with the 6H seats are excellent in high abrasion and high temperature services so that they can be used for fluids including foreign particles and application of heated steam.**
- **SWELLESS® seats** have excellent resistance to the permeation of monomer, such as Styrene or Butadiene, into the molecular structure of the ball seat materials, which is known as a ‘swelling’ problem.
- **Excellent sealing performance, operability and chemical resistance have been achieved by using fluoro resin as the base for the ball seat.**
- **PEEK seats** have high mechanical strength at a wide range of temperatures. The seat has excellent heat and chemical resistance, conforming with the requirements of UL94-VO for its flame retardancy.

### Cartridge Ball Valve

- The ball seats are used in Class JIS 10K - 20K / ASME Class 150 - 300 stainless steel and carbon steel floating ball valves.
- **Maximum Service Temperature:** 200°C

### Ball Valve

- The ball seats are used in Class JIS 10K - 20K / ASME Class 150 - 300 stainless steel and carbon steel floating ball valves.
- **Maximum Service Temperature:** 270°C