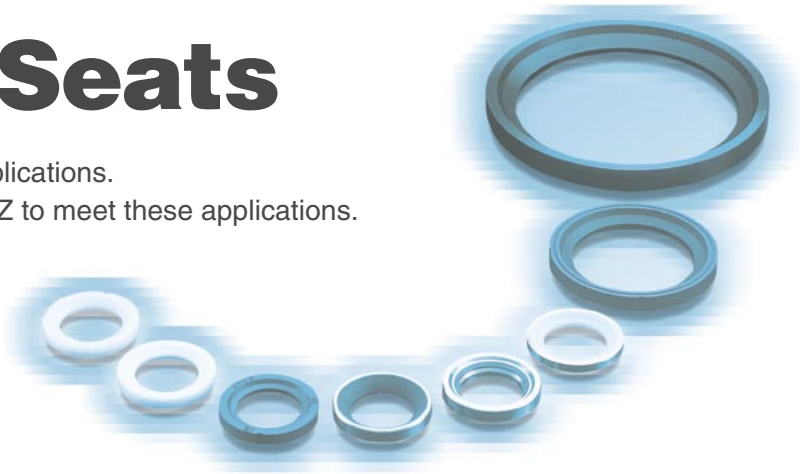
KITZ

Ball Valve Seat

KITZ CORPORATION

Ball Valve Seats

Ball valves are used in a wide range of applications.
Various seat materials are available at KITZ to meet these applications.



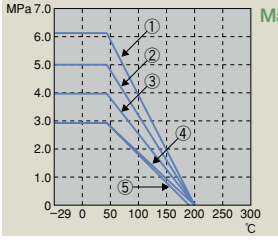
⚠ Cautions ! : P-T rating charts introduced in this literature show only ball seat ratings. The P-T ratings of ball valves are limited by the body materials as well as the seat materials. Please refer to our ball valve catalogs, E-201, E-204 or E-205, for actual valve P-T ratings.

PTFE <Polytetrafluoroethylene resin>

●PTFE seats possess high chemical resistance and excellent sealing performance.

The ball seats are used in bronze, brass and cast iron floating ball valves

●Pressure-Temperature Ratings



Maximum Service Temperature : 200℃

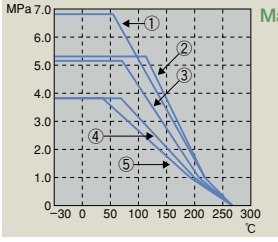
①	15A・20A
②	25A～65A
③	80A・100A
④	125A・150A
⑤	200A・250A

HYPATITE PTFE® <Hypatite Polytetrafluoroethylene resin>

●Hypatite seats are made of modified PTFE.
●Hypatite seats can be used at 260℃ with an excellent resistance to creep or compression and abrasion service, featuring of high elasticity and resilience. Hypatite seats also have good chemical resistance, so they can be used for as wide range of chemicals as PTFE.
* Hypatite PTFE® is a registered trademark of KITZ Corporation.

The ball seats are used in Class JIS 10K・20K / ASME Class 150・300 ductile iron, stainless steel and carbon steel floating ball valves.

●Pressure-Temperature Ratings



Maximum Service Temperature : 260℃

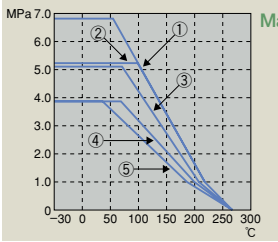
①	15A・20A
②	25A～65A
③	80A・100A
④	125A・150A
⑤	200A・250A

C/F PTFE <Carbon fiber filled Polytetrafluoroethylene resin>

●This ball seat is made of PTFE reinforced with carbon.
●The seat has high mechanical strength and abrasion resistance.

The ball seats are used in Class JIS 10K・20K / ASME Class 150・300 ductile iron, stainless steel and carbon steel floating ball valves.

●Pressure-Temperature Ratings



Maximum Service Temperature : 260℃

①	15A・20A
②	25A～65A
③	80A・100A
④	125A・150A
⑤	200A・250A

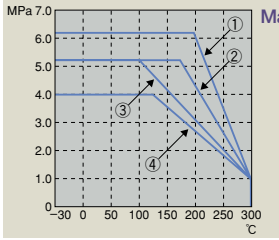
FILLTITE® (1H) <Polytetrafluoroethylene resin with carbon based special filler>

●FILLTITE® seats can be used at a temperature as high as 300℃, the highest service temperature among PTFE based ball seats.

The ball seats are used in: Class JIS 10K・20K / ASME Class 150・300 stainless steel and carbon steel floating ball valves.

Maximum allowable seat leakage: ANSI /FCI 70-2 Class VI. (Test media, Air)

●Pressure-Temperature Ratings



Maximum Service Temperature : 300℃

①	15A～65A
②	80A・100A
③	125A～150A
④	200A～250A

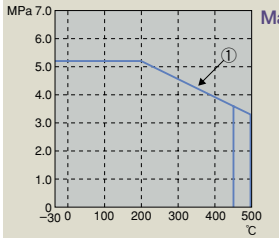
CARBOTITE (3H) <Hard carbon>

●CARBOTITE seats are made of hard carbon with excellent heat resistance. Maximum service temperature is 500℃. The leakage may increase when valves are exposed to an oxidized service at a higher temperature than 450℃ for extended periods.

The ball seats are used in: Class JIS 10K・20K / ASME Class 150・300 stainless steel and carbon steel floating ball valves.

Maximum allowable seat leakage: ANSI /FCI 70-2 Class VI. (Test media, Air)

●Pressure-Temperature Ratings



Maximum Service Temperature : 500℃

①	15A～200A

Metal seat (5H) <Hard faced metal seat>

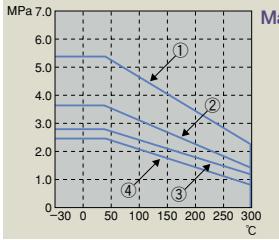
●The surface of the 316 stainless steel seats is hard faced by thermal-spraying with nickel and chrome alloys for 300℃ high temperature service.

●The seat has high abrasion resistance so that it can handle fluids including foreign particles.

The ball seats are used in: Class JIS 10K・20K / ASME Class 150・300 stainless steel and carbon steel floating ball valves

Maximum allowable seat leakage:
●ANSI /FCI 70-2 Class VI. (Test media, Air)
●For oil-free valves : 21.75ml/min. x port diameter (inch) x differential pressure (MPa)

●Pressure-Temperature Ratings



Maximum Service Temperature : 300℃

①	15A～32A
②	40A・50A
③	65A～100A
④	125A～200A

Metal seat (6H) <Hard faced metal seat>

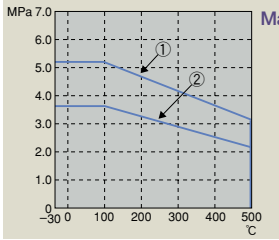
●The ball and ball seat surfaces are hard faced by thermal-spraying with nickel and chrome alloys, which enables valves to be used at a temperature of 500℃.

●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.

The ball seats are used in: Class JIS 10K・20K / ASME Class 150・300 stainless steel and carbon steel floating ball valves.

Maximum allowable seat leakage:
●ANSI /FCI 70-2 Class VI. (Test media, Air)
●For oil-free valves : 21.75ml/min. x port diameter (inch) x differential pressure (MPa)

●Pressure-Temperature Ratings



Maximum Service Temperature : 500℃

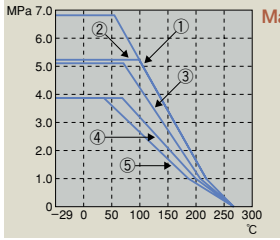
①	15A～125A
②	150A～200A

SWELLESS seat

- 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 fluoride resin as the base for the ball seat.

The ball seats are used in Class JIS 10K・20K / ASME Class 150・300 stainless steel and carbon steel floating ball valves.

- Pressure-Temperature Ratings



Maximum Service Temperature : 260℃

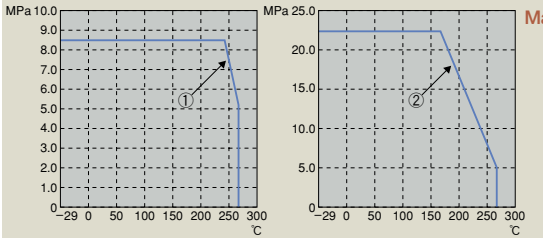
①	15A・20A
②	25A～65A
③	80A・100A
④	125A・150A
⑤	200A・250A

PEEK seat <Polyetheretherketone resin>

- 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.

The ball seats are used in Class ASME Class 150・300 stainless steel and carbon steel floating and trunnion mounted ball valves.

- Pressure-Temperature Ratings



Maximum Service Temperature : 270℃

①	Class150・300・600
②	Class900・1500

⚠ CAUTION

Tables of temperatures shown in this brochure indicate the maximum temperature for each valve nominal size. For P-T ratings, please refer to the chart shown next to the table.

For any specific application, users are kindly requested to contact KITZ CORPORATION for technical advice, or to carry out their own study and evaluation for proving suitability of these products to such a n application. Failure to follow this request could result in property damage and/or pesonal injury, for which we shall not be liable. While this catalog has been compiled with the utmost care, we assume no responsibility for errors, impropriety or inadequacy. Any information provided in this brochure is subject to from-time-to-time change without notice for error rectification, product discontinuation, design modification, new product introduction or any other cause that KITZ CORPORATION considers necessary. This edition cancels all previous issues.

ISO 9001 certified since 1989

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